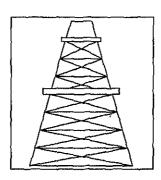
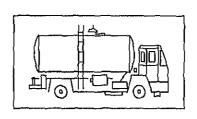
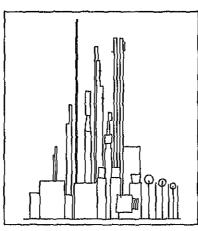
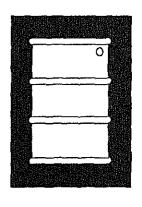
Weekly Petroleum Status Report

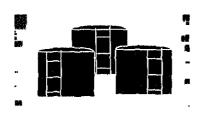


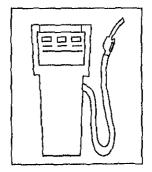














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Preface

The Weekly Petroleum Status Report (WPSR) provides timely information on the petroleum supply situation in the context of historical information, selected prices, and forecasts. The WPSR is intended to provide up-to-date information to the industry, the press, planners, policymakers, consumers, analysts, and State and local governments. It is published each Thursday by the Energy Information Administration (EIA) and excerpts of the data are available electronically after 5:00 p.m. Wednesday. The data contained in this report are based on company submissions for the week ending 7 a.m. the preceding Friday. For some weeks which include holidays, publication of the WPSR is delayed by 1 day. The WPSR is not published during 1 of the last 2 weeks of the year depending upon which day of the week Christmas occurs. The following week's issue includes data for both weeks.

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Highlights

Refinery Activity (Million Barrels per Day)

| | Four Weeks Ending | | | | | | | |
|---|-------------------|----------|----------|--|--|--|--|--|
| | 11/03/89 | 10/27/89 | 11/03/88 | | | | | |
| Crude Oil Input to Refineries | 13.3 | 13.4 | 13.1 | | | | | |
| Refinery Capacity Utilization (Percent) | | 86.6 | 83.5 | | | | | |
| Motor Gasoline Production | | 6.9 | 6.9 | | | | | |
| Distillate Fuel Oil Production | | 2.9 | 2.8 | | | | | |

Refinery capacity utilization averaged 86.2 percent during the 4 weeks ending November 3, 1989, about 3 percent above the rate for the same period last year.

Stocks (Million Barrels)

| | | Week Ending | L |
|---------------------------|----------|-------------|----------|
| | 11/03/89 | 10/27/89 | 11/03/88 |
| Crude Oil (Excluding SPR) | 340.6 | 342.7 | 339.4 |
| Motor Gasoline | 221,2 | 223.6 | 217.9 |
| Distillate Fuel Oll | | 119.0 | 128.3 |
| All Other Oils | | 407.2 | 394.3 |
| Crude Oil in SPR | | 577.8 | 556.2 |
| Tota | | 1,670.3 | 1,636.1 |

On November 3, 1989, distillate fuel oil stocks stood at 119.2 million barrels, about 7 percent below the level 1 year ago. Although this level is below the average range for the past 3 years, it is well above the minimum operating inventory level.

Net Imports (Million Barrels per Day)

| | Four Weeks Ending | | | | | | | |
|--------------------|-------------------|----------|----------|--|--|--|--|--|
| | 11/03/89 | 10/27/89 | 11/03/88 | | | | | |
| Crude Oll | 6,2 | 6.1 | 5.4 | | | | | |
| Petroleum Products | | 1.2 | 1.7 | | | | | |
| Total | 7.4 | 7,3 | 7.1 | | | | | |

Year to date net imports this year continue to average about 10 percent above the average for the same period last year.

Products Supplied (Million Barrels per Day)

| Four Weeks Ending | | | | | | | |
|-------------------|-------------------------------|--|--|--|--|--|--|
| 11/03/89 | 10/27/89 | 11/03/88 | | | | | |
| 7.2 | 7.2 | 7,3 | | | | | |
| | 3,2 | 3,2 | | | | | |
| | 6.3 | 7.1 | | | | | |
| 16.7 | 16.7 | 17.6 | | | | | |
| | 11/03/89 7.2 3.1 6.4 | 11/03/89 10/27/89 7.2 7.2 3.1 3.2 6.4 6.3 | | | | | |

Distillate fuel oil product supplied during the 4-week period ending November 3, 1989, averaged 3.1 million barrels per day, about 3 percent below the rate supplied a year ago.

Prices (Dollars per Barrel)

| | | Week Ending | |
|--|----------|-------------------------|-------------------------|
| | 11/03/89 | 10/27/89 | 11/04/88 |
| World Prices World Crude OilSpot Market Product Prices 1 | 17.31 | 17.07 | 11.11 |
| Rotterdam Market 98 Octane Gasoline(Leaded) Gas Oil Residual Fuel Oil | . 25.13 | 22.74 24.06 16.82 | 21.22 16.82 11.79 |
| New York Market 87 Octane Unleaded Reg Gasoline No. 2 Heating Oil | . 24.95 | 22.79 23.84 17.50 | 22.05 18.63 14.00 |

The weighted average international price of crude oil as of November 3, 1989, is estimated to be \$17.31 per barrel, an increase of 24 cents from the previous week.

le 1. U.S. Petroleum Balance Sheet

| eum Supply sand Barrels per Day) P Oil Supply Domestic Production ¹ Net Imports (Including SPR) ² Gross Imports (Excluding SPR) SPR Imports Exports SPR Stocks Withdrawn (+) or Added (-) Other Stocks Withdrawn (+) or Added (-) Product Supplied and Losses Unaccounted-for Crude Oil ³ Crude Oil Input to Refineries | E7,641 6,231 6,306 41 E116 -41 -67 E-18 -429 | 8,023 5,352 5,470 46 165 -47 | -4.8 16.4 15.3 | 1989 E _{7,690} 5,702 5,794 | 1988 8,168 4,939 | Percent Change -5.9 15.4 | |
|---|--|---|----------------------|--|------------------------|-----------------------------------|--|
| Domestic Production ¹ Net Imports (Including SPR) ² Gross Imports (Excluding SPR) SPR Imports Exports SPR Stocks Withdrawn (+) or Added (-) Other Stocks Withdrawn (+) or Added (-) Product Supplied and Losses Unaccounted-for Crude Oil ³ | 6,231 6,306 41 E116 -41 -67 E-18 | 5,352 5,470 46 165 | 16.4 15.3 | 5,702 | 4,939 | | |
| Domestic Production ¹ Net Imports (Including SPR) ² Gross Imports (Excluding SPR) SPR Imports Exports SPR Stocks Withdrawn (+) or Added (-) Other Stocks Withdrawn (+) or Added (-) Product Supplied and Losses Unaccounted-for Crude Oil ³ | 6,231 6,306 41 E116 -41 -67 E-18 | 5,352 5,470 46 165 | 16.4 15.3 | 5,702 | 4,939 | | |
| Net Imports (Including SPR) ² Gross Imports (Excluding SPR) SPR Imports Exports SPR Stocks Withdrawn (+) or Added (-) Other Stocks Withdrawn (+) or Added (-) Product Supplied and Losses Unaccounted-for Crude Oil ³ | 6,231 6,306 41 E116 -41 -67 E-18 | 5,470 46 165 | 15.3 | | | 154 | |
| Gross Imports (Excluding SPR) SPR Imports Exports SPR Stocks Withdrawn (+) or Added (-) Other Stocks Withdrawn (+) or Added (-) Product Supplied and Losses Unaccounted-for Crude Oil ³ | 6,306 41 E116 -41 -67 E-18 | 5,470 46 165 | | 5,794 | | , | |
| SPR Imports Exports SPR Stocks Withdrawn (+) or Added (-) Other Stocks Withdrawn (+) or Added (-) Product Supplied and Losses Unaccounted-for Crude Oil ³ | 41 E ₁₁₆ -41 -67 E ₋₁₈ | 46 165 | | | 5 047 | 14.8 | |
| Exports SPR Stocks Withdrawn (+) or Added (-) Other Stocks Withdrawn (+) or Added (-) Product Supplied and Losses Unaccounted-for Crude Oil ³ | E116 -41 -67 E-18 | 165 | | 61 | 50 | •• | |
| SPR Stocks Withdrawn (+) or Added (-) Other Stocks Withdrawn (+) or Added (-) Product Supplied and Losses Unaccounted-for Crude Oil ³ | -41 -67 E ₋₁₈ | | -29.9 | E ₁₅₃ | 158 | -3.2 | |
| Other Stocks Withdrawn (+) or Added (-) | -67 E ₋₁₈ | | | -61 | -51 | | |
| Product Supplied and Losses | E ₋₁₈ | -326 | ••• | -39 | 31 | ** | |
| Unaccounted-for Crude Oil ³ | | -320 -42 | | E ₋₂₈ | -39 | _ | |
| | -429 | | _ | | 193 | | |
| Crude Oil Input to Refineries | | 168 | | 154 | 183 | _ | |
| | 13,317 | 13,128 | 1.4 | 13,418 | 13,241 | 1.3 | |
| Supply | F. son | 4.004 | | E _{1,5} 80 | 1,620 | -2.5 | |
| Natural Gas Liquids Production | E1,528 | 1,661 | -8.0 | -1,580 57 | • | 10.7 | |
| Other Hydrocarbons and Alcohol New Supply | E68 | 54 | 26.9 | E ₂₇ | 51 | -30.6 | |
| Crude Oil Product Supplied | E 18 | 42 | -57.3 | F27 | 39 | | |
| Processing Gain | E ₆₅₅ | 650 | 0.7 | ^E 646 | 651 | -0.7 | |
| Not Product Imports ⁴ | 1,138 | 1,739 | -34.6 | 1,463 | 1,596 | -8.4 | |
| Gross Product Imports ⁴ | 1,896 | 2,305 | -17.7 | 2,168 | 2,243 | -3,3 | |
| Product Exports ⁴ | E ₇₅₈ | 566 | 33.9 | ₽706 | 647 | 9.1 | |
| Product Stocks Withdrawn (+) or Added (-) ⁵ | -34 | 308 | | -168 | -55 | | |
| Total Product Supplied for Domestic Use | 16,691 | 17,583 | -5.1 | 17,024 | 17,144 | -0,7 | |
| ucts Supplied | | | | | | | |
| Motor Gasoline | 7,197 | 7,279 | -1.1 | 7,305 | 7,332 | -0.4 | |
| Naphtha-Type Jet Fuel | 242 | 214 | 12.7 | 210 | 211 | -0.1 | |
| Kerosene-Type Jet Fuel | 1,296 | 1,273 | 1.8 | 1,263 | 1,229 | 2,7 | |
| Distillate Fuel Oil | 3,107 | 3,215 | -3,4 | 3,073 | 3,072 | 0.0 | |
| Residual Fuel Oil | 1,122 | 1,354 | -17.2 | 1,292 | 1,328 | -2.7 | |
| Other Olls ⁸ | 3,728 | 4,247 | -12.2 | 3,881 | 3,972 | -2.3 | |
| Total Products Supplied | 16,691 | 17,583 | -5.1 | 17,024 | 17,144 | -0.7 | |
| Net Imports | 7,369 | 7,091 | 3.9 | 7,164 | 6,536 | 9.6 | |
| leum Stocks | 11/03/89 | 10/27/89 | 11/03/88 | F | ercent Chan | nge from | |
| on Barrels) | 1 1/03/09 | 10/2//08 | 11/00/00 | Previo | us Week | Year Ago | |
| Oil (Excluding SPR)7 | 340.6 | 342.7 | 339.4 | | -0.6 | 0.4 | |
| Motor Gasoline | 221.2 | 223.6 | 217.9 | | 4.1 | 1.5 | |
| Finished Leaded | 19.5 | 20.4 | 38.7 | | -4,5 | -49.7 | |
| Finished Unleaded | 164.0 | 165,0 | 141.9 | • | -0.6 | 15.6 | |
| Blending Components | 37.7 | 38.2 | 37.3 | | -1.3 | 1,0 | |
| tha-Type Jet Fuel | 5.9 | 5.9 | 6.3 | | -0,8 | 7.0 | |
| sene-Type Jet Fuel | 44.3 | 43.5 | 40.7 | | 1.9 | 8.9 | |
| ate Fuel Oil | 119.2 | 119.0 | 128.3 | | 0.1 | -7.1 | |
| dual Fuel Oil | 50.1 | 48.7 | 42.6 | | 3.0 | 17.8 | |
| | 110.3 | 111.1 | 109.3 | | -0.7 | 1.0 | |
| ished Ollsr Olls ⁸ | E197.1 | E198.1 | 195.4 | | -0,5 | 0,9 | |
| Stocks (Excluding SPR) | 1,088,8 | 1,092.5 | 1,079.9 | , | -0.3 | 0,8 | |
| Stocks (Excluding SFT) | 578,3 | 577.8 | 556,2 | | 0.1 | 4.0 | |
| e Oil in SPR Stocks (Including SPR) | 1,667.1 | 1,670.3 | 1,636.1 | | -0.2 | 1.9 | |

Includes lesse condensate.

lanation of estimates of crude oil production.

Note: Due to independent rounding, individual product detail may not add to total. The percentages shown are calculated using unrounded numbers. Sources: See page 25.

Net Imports = Gross Imports (line 3) + Strategic Petroleum Reserve (SPR) Imports (line 4) - Exports (line 5).

Unaccounted for Crude Oil is a balancing item. See Glossary for further explanation.
Includes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids.

Includes an estimate of minor product stock change based on monthly data.

Includes crude oil product supplied, natural gas liquids, liquefied refinery gases (LRGs), other liquids, and all finished petroleum products except motor oiline, jet fuels, and distillate and residual fuel oils.

Includes crude oil in transit to refineries. included are stocks of all other oils such as aviation gasoline, kerosene, natural gas liquids and LRGs, other hydrocarbons and alcohol, aviation gasoline included are stocks of all other one such as aviation gasoline, keroserie, natural gas include and tinder, other hydrocarbons and accords, aviation gasoline iding components, naphtha and other oils for petrochemical feedstock use, special naphthas, lube oils, waxes, coke, asphalt, road oil, and miscellaneous oils, the current 2 weeks, stocks of these minor products are estimated from monthly data. (See Glossary: Stock change (Refined Products)).

E=Estimate based on data published for the most recent month in the Petroleum Supply Monthly, except for crude oil production. See Appendix for

Table 2. Refinery Activity (Million Barrels per Day)

| | | | | Input | s and Utili | zation | | | | | | |
|---|--------------------------|--|---------------------------------------|--------------|--|---------------|--------------|-------------------|-------------------|-------------------|---------------------------------------|--|
| Year/Element | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Deo |
| 1987 | 100 | 100 | ٠,٠ | 45.5 | 40.7 | 46.0 | 13.4 | 13.4 | 19.2 | 12.7 | 13,0 | 13,2 |
| Crude Oil Input Gross Inputs | 12. 6 12.7 | 12,3 12.4 | 12.1 12.2 | 12.5 12.6 | 12.7 12.8 | 18,2 13.3 | 13.6 | 13.5 | 13.3 | 12.9 | 13.1 | 13.4 |
| Operable Capacity | 15.6 | 155 | 15.6 | 12.6 15 G | 156 | 15.6 | 15.7 | 15.6 | 15 6 | 156 | 15.9 | 15.9 |
| Percent Utilization | 81 8 | 79.9 | 78.6 | 81 2 | 825 | 85 4 | 85 7 | 837 | 85 5 | 82 7 | 823 | 83 0 |
| | | | | | | | | | | | | |
| 1988 | | | 155.4 | | | | ** | *** | an a | 10.3 | 44.0 | 46.4 |
| Crude Oll Input | 12,9 | 12.6 | 13.0 | 18.1 | 13.4 | (3.5 | 13,6 | 13.8 | 13.8 | 13.1 | 13.2 | 18.4 |
| Gross inputs | 13.2 | 12.9 | 13.2 | 133 | 13.6 | 13.7 | 13.8 | 14.0 | 13.4 | 13.3 | 13,4 15,9 | 13,6 15.9 |
| Operative Capacity Percent Utilization ¹ | 159 823 | 15 g 80,9 | 15 9 23 3 | 15 9 84 0 | 15 9 85 7 | 15 9 86 0 | 16.0 86 5 | 16 C 87 4 | 16 0 83 7 | 15.9 83 4 | 83 9 | 85.1 |
| | | | | | | | | | | | | |
| 1989 | | | | | | | | | | | | |
| Cruda Oil Input | 13.3 | 12.8 | 13.0 | 13.2 | 13 4 | 16 9 | 138 | 13 9 | | | | |
| Gress Inputs | 135 | 13 0 | 13 2 | 13 1 | 136 | 4 | 14 0 | 140 | | | | |
| Operable Carde 4 | 15 7 | 15 7 | 157 | 15.7 | 157 | 157 | 15.7 | 157 | | | | |
| Percent utilization ¹ | 86 1 | 829 | 84 9 | 8 63 | 865 | 896 | 83.0 | 804 | | | | |
| Average for Four-Week Pe | riod Ending: | | | | | | | | | | | |
| 1989 | 09/01 | 09/08 | 09/15 | 09/22 | 09/29 | 10/06 | 10/13 | 10/20 | 10/27 | 11/03 | | |
| Crude Oll Input | 13,9 | 14,0 | 14.0 | 13.9 | 13,8 | 13,7 | 13,6 | 13,4 | 13,4 | 19,3 | | |
| Gross Inputs | _14.1 | _14.2 | _14.2 | _14.1 | _14.0 | _13.9 | _13.8 | _13,7 | _13.6 | _13.5 | | |
| Operable Capacity | [©] 15,7 | £15,7 | E15,7 | #15.7 | [#] 15.7 | #15.7 | E15.7 | [₽] 15.7 | ⁸ 15,7 | ⁸ 15,7 | | |
| Percent Utilization ¹ | 90.1 | 90.7 | 90.6 | 90.1 | 89.4 | 88.4 | 87.9 | 87.1 | 86.6 | 86.2 | | |
| | | | | Produ | ction by P | roduct | | | | **** | · · · · · · · · · · · · · · · · · · · | ······································ |
| Year/Product | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Deo |
| 4865 | | · · · · · · · · · · · · · · · · · · · | · · · · · · · · · · · · · · · · · · · | | <u>- </u> | | · | | <u> </u> | | | |
| 1987 Finished Motor Gasolina | 67 | | | | ~ . | ~ . | | | | | | |
| Loaded | :8 | 6.4 | 66 | 68 | 70 | 7.1 | 70 | 69 | 3 ទ | 6.7 | 69 | 7.0 |
| Unleaded | 4.9 | 1 7 4.7 | 1 6 4. 9 | 1 7 5.1 | 18 | 18 | 1.7 | 16 | 17 | 1.5 | 1.6 | 15 |
| Jet Fuel | 1.4 | 1,3 | 1.3 | - | 5,2 | 5,3 | 5.3 | 5.8 | 5,3 | 5.1 | 5.4 | 5.5 |
| Oistillate Fuel Oil | 2.8 | 1,3 2,5 | 2.4 | 1.3 2.6 | 1.3 2,6 | 1.3 | 1.3 | 1.4 | 1.4 | 1,4 | 1.4 | 1.4 |
| Residual Fuel Oil | 0.9 | 0.8 | 0.9 | 0.8 | 2,0 0,8 | 2.7 0.9 | 2,7 0.9 | 2,7 0.9 | 2,7 | 2.8 | 0.6 | 3.2 |
| 1988 | 0,0 | 0,0 | 0.3 | 0.0 | 0,0 | 0,8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 |
| Finished Motor Gasoline | 6.7 | 6.7 | 6.7 | 6.9 | 6,9 | ٧n | 40 | 44 | *** | ** | . HK u | HF 24 |
| Leaded | 1,3 | 1.3 | 1.3 | 1.4 | 1.4 | 7.0 1.4 | 7.2 1.4 | 7.2 1.3 | 6.9 | 6,9 | 7.1 | 7.3 |
| Ur 'eaded | 5 4 | 5.4 | 5.4 | 5.5 | 5.5 | 5.6 | 58 | 59 | 1.2 | 12 | 12 | 12 |
| Jet Fuel | ' 4 | • 4 | 5 | 13 | 1 3 | 1.3 | 14 | 13 | 57 14 | 5.7 1 4 | 50 | 6.1 |
| Distriate Fuel C: | 3 0 | 2.7 | 27 | 29 | 29 | 29 | 28 | 2.8 | 28 | 2.6 | 1.3 2.9 | 15 31 |
| Residual Fuel Cil | 1.0 | 1,0 | 0.9 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 1.1 |
| 1989 | | | | | | | | | | | | |
| Finished Motor Gaso ne | 6,9 | 6.6 | 66 | 63 | 6.9 | 73 | 74 | 7.2 | | | | |
| Loaocd | 4 0 | 0,9 | 0.8 | 08 | 0.9 | 0.9 | 0.8 | C 7 | | | | |
| Unleaded | 59 | 5.7 | 58 | 6.0 | B.1 | 6.4 | 6.6 | 6.4 | | | | |
| Jot Fuel | 15 | 1.4 | : 4 | 13 | 12 | 1.4 | 1.4 | 1.4 | | | | |
| Distillate Fuel Oil | 3.0 | 2.8 | 2.7 | 2.8 | 2.7 | 2.8 | 2.8 | 2.9 | | | | |
| Residual Fuel Oil | 0.9 | 0,9 | 0.9 | 9,0 | 0.9 | 1.0 | 0.0 | 0.9 | | | | |
| Average for Four-Week Pe | rlod Endina: | | | | | | | | | | | |
| 1989 | 09/01 | 09/08 | 09/15 | 09/22 | 09/29 | 10/06 | 10/13 | 10/20 | 10/27 | 11/03 | | |
| Finished Motor Gasoline | 7.0 | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | 7.1 | 7.1 (| 7.1 | 7.1 | 7.0 | 6,9 | 6,9 | 6,8 | | |
| Leaded Unioaded | 0.6 | 0,6 | 0.6 | 0.7 | 0.7 | 0.6 | 0,6 | 0,6 | 0,6 | 0.5 | | |
| unieaded Jet Fuel | 50 6,4 | . 6.4 | 6.4 | 6.5 | 6.5 | , 6 ,4 | 6,4 | 6,8 | 6.8 | 6.3 | | |
| AND THE STATE OF | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1,5 | 1.5 | | |
| Distritate Fuel Oil Residual Fuel Oil | 0,9 3,0 | . 0.B ⊹ | 8.1 | 8.1 | 3.0 | 9,0 | 2.9 | 2,9 | 2.9 | 2.9 | | |
| | U.S | 0,9 | 0.9 | 0.9 | 0.9 | 0.9 | 0,9 | 0.9 | 1,0 | 1.0 | | |

¹ Calculated as 4-week average gross inputs divided by the latest reported monthly operable capacity. See Glossary. Percentages are calculated using

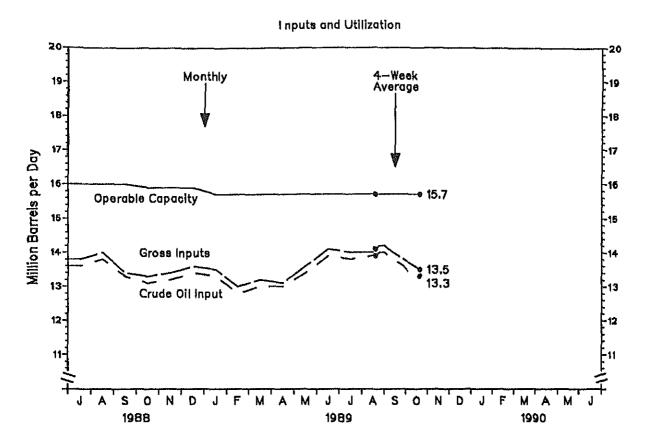
unrounded numbers.

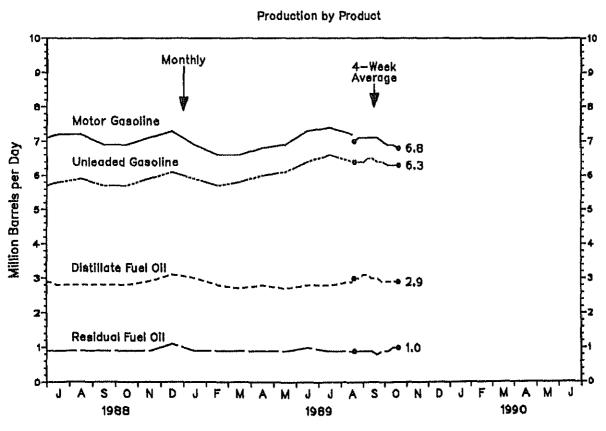
E=Estimate based on data published for the most recent month in the Petroleum Supply Monthly.

Note: Production statistics represent net production (i.e., refinery output minus refinery input).

Source: See page 25.

Refinery Activity (Million Barrels per Day)





purce: See page 25.

Table 3. Stocks Of Crude Oil And Petroleum Products, 1 U.S. Totals

| (Million Bai | rrels) | | | | | | | | | | | |
|-------------------------------|---------|---------|---------|--------------------|---------------|-------------------|---|-----------------|---|------------|---------------|--------------|
| Year/Product | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Deo |
| 1987 | Vali | | JAIGH | | ividy | OUIT | QUI | Aug | Geb | | 1404 | 000 |
| Crude Oil ² | 338,0 | 931.9 | 392.5 | 329.0 | 324.7 | 327.6 | 923.8 | 332.5 | 337.2 | 355,9 | 363.6 | 349.Q |
| Motor Gasoline | 251.1 | 250.1 | 248.1 | 241.8 | 234.9 | 230.4 | 226.4 | 226.5 | 229.6 | 218.0 | | 226.2 |
| Finished Leaded | 70.7 | 68.7 | .65.1 | | 57.6 | | | | | | 225.2 53.5 | |
| Finished Unleaded | 139.9 | 137.9 | 139.9 | 59.4 | | 55,6 | | 53.8 | 55.0 | 51,6 | | 53.1 |
| Blending Components | 40.5 | | | 141.6 | 138.4 | 136.9 | 134.2 | 134.2 | 136.2 | 130.2 | 134.6 | 135.7 |
| Jet Fuel | | 43,5 | 43.1 | 40.8 | 39.0 | 37.9 | 37.5 | 38.5 | 98.5 | : 36,2 | . 37.1 | 37.4 |
| Distillate Fuel Oil | 49.7 | 48.3 | 48.1 | 47.2 | 47.4 | 46.9 | 46.7 | 47.7 | 50.2 | 49.8 | 51.0 | 49.9 |
| Residual Fuel Oil | 141.3 | 123.7 | 109.3 | 100.3 | 101,8 | 104.4 | 114.6 | 124,7 | 126.8 | 121.0 | 128.0 | 184,5 |
| | 44.9 | 38,1 | 39.3 | 35.9 | 40.4 | 41.4 | 44.7 | 45.7 | 44.4 | 45.6 | 50.0 | 47.4 |
| Unfinished Oils Other Oils | 93.5 | 101.7 | 106.7 | 104,5 | 102.0 | 102,4 | 100.0 | 103,6 | 103.0 | 104.9 | 101.9 | 93,2 |
| Other Oils | 157.4 | 152.9 | 152 8 | 1587 | 166 0 | 168 7 | 172 9 | 179.4 | 190 7 | 170 1 | 17A 7 | 168 ይ |
| 7.1. ya 87.0) | 1.1.1.1 | 1, 4. | | 1.5 | 1 01: (| 2"." | 1025.9 | | 1,.4 | 1.5 | 9.4 | , , , |
| Crisk Din Callin | 7 | | -, - | 27 | 7.47 | 1.27.2 | - 17 " | 332.1 | | | | £ |
| Total (Incl. SPR) | f,586.0 | 1,569.4 | 1,558.7 | 1,539.2 | 1,541.7 | 1,548,0 | 1,558.6 | 1,592.0 | 1,605.7 | 1,610,Q | 1,634.9 | 1,607.5 |
| 1988 | | | | | | | | | | | | |
| Crude Oil ² | 345.6 | 348.0 | 354.0 | 357.4 | 359.7 | 358.9 | 349.5 | 633.6 | מ ממפ | 839.6 | 337.0 | 330.4 |
| Motor Gasoline | 240 3 | 241.4 | 231.7 | 22F 7 | 226 1 | 210.1 | | | 328.6 | 2177 | | |
| Frace Cast | 240 G | - | 11.6 | | _ | | 2 5 3 | 220 1 | 221 3 | | 2212 | 228 4 |
| 1 3 -: 1:0g | 15.0 | | | | 417 | | . 1 | en f | ÷ | | | ::2 |
| By anglary to the | | | 'a 6 | | | . 22 | 3. | | | • • • • • | | .:) . |
| n y ang am promis | ù. È | | 3.75 | · 0 · | 3 | -5 2 | 55 è | | 34 " | 5 5 | |) <u>(</u> - |
| Cathon Barton Barton | | # 5 | 11. 2 | 49.1 | | 4; E | 6.0 | 46.5 | | 1 | 4". | *.) ö |
| Entline "as C | 193. | -11.0 | d · f | , | 4.9 | 10.4 | - i c | ' ¿ :: · | , . | | 76.5 | 7.15 |
| Best City | 4: 1 | 4. | | 42 | 45.7 | :. 2 | ₩. Ç | 18.0 | | 13.7 | | . Ç |
| Un ships | 67.0 | \$r. 15 | n 5 | | 12.3 | 15.6 | - 14 C | •••• | *** 3 | 7. | 7.5 | 7. 1 |
| Ste Str | :52 | 107 5 | 17.7 | 15 : | 7. 2 | • • • • • | 161.2 | | ۷. |) . | | . 2 |
| Turn (Data 1993) | 1.05.4 | + 104 A | 1.45 | 1,"31 | 1 745.9 | 1 561. : | | C 4 | , a - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - | 2114 | | 17:13 |
| Caracter S | 5-2 / | ა:11 | . 44. | 24.7 | 10.0 | 51 | 501.5 | 5÷2 1 | | , | 8 5 g T | 5 15 5 |
| You the SPR | 653 | 575 | 5593 | ė; | 14 /3 | 1 | 1.89 | 1,675 e | | 4 | 1.401.5 | |
| 1989 | | | | | | | | | | | | |
| Crare C. ¹ | 23 - 34 | 514 | 5 4.3 | 319: | -13 4 | : 1 | 17.1.4 | 1.41.6 | | | | |
| Value o | 3 1 | 11. | 277.0 | 22 | 31 | | 352.1 | | | | | |
| Larid ages | . 1 | 3.5 | 3 | 6. | | 7 (4.) | 2:35 | 5 | | | | |
| Γι ε ε ε | 161 | | 3 | | 6.9 | 1.1 | 25 | 22 <u>2</u> | | | | |
| Blending Components | | | | | | ii. | 77, 1 | 1:17 | | | | |
| | 42.8 | 43,5 | 41,0 | 38.6 | 39.7 | 39.2 | 38.7 | 38.4 | | | | |
| Jet Fuel | 44.5 | 43.7 | 44,0 | 44.2 | 45.4 | 44.6 | 47.4 | 48.3 | | | | |
| Distillate Fuel Oil | 120,3 | 107.5 | 98,8 | 98.4 | 99.3 | 99.4 | 115.0 | 116.≇ | | | | |
| Residual Fuel Oil | 47,0 | 46.0 | 42.4 | 40.2 | 42.6 | 44.8 | 43.0 | 44,5 | | | | |
| Unfinished Oils | 102,4 | 104,7 | 108 5 | 1(17 | 114.6 | 113.4 | 108.9 | \$,601 | | | | |
| Other Olis ³ | 162,0 | 155.9 | 155.5 | 166.6 | 181.3 | 186.2 | 198.4 | 202,4 | | | | |
| Total (Excl. SPR) | 1,058,0 | 1,037.7 | 1,003.2 | 1,027.9 | 1,052.0 | 1,036.0 | 1,073,6 | 1,079.0 | | | | |
| Crude Oll in SPR | 561.5 | 563.9 | 566.2 | 568.0 | 570.4 | 571,7 | 574.4 | 575.4 | | | | |
| Total (Indi-SPR) | 1,619,5 | 1,601.6 | 1,569.5 | 1,595.9 | 1,622.4 | 1,607.7 | 1,647.9 | 1,654.4 | | | | |
| Most Endings | | | | | | | | | | | | |
| Week Ending: 1989 | 09/01 | 09/08 | 09/15 | 09/22 | 09/29 | 10/06 | 10/13 | 10/20 | 10/27 | 11/03 | | |
| Crude Oil* | 339,3 | 341,6 | 330.7 | 331.9 | 334,5 | 938.8 | 344.3 | 337.5 | 342.7 | 340,6 | | |
| Motor Gasoline | 219.4 | 219.6 | 220.1 | 221.0 | 226.7 | 227.6 | 225.7 | 223.6 | 223.6 | 221.2 | | |
| Finished Leaded | 22.0 | 21.9 | 21.7 | 22.4 | 21.8 | 21.5 | 21.3 | 225.0 21.4 : | | | | |
| Finished Unleaded | 158,5 | 159.0 | 158.8 | 161.0 | 165.1 | 165.1 | 165.5 | 163.9 | 165,0 | 164.0 | | |
| Blending Components | 36.9 | 38,6 | 39.5 | 87.5 | 39.8 | | | | | | | |
| Tet Enel | 49,1 | 48,6 | | | | | 38.9 | | | | | |
| Distillate Fuel Oil | 116,2 | | 48.7 | 49.2 | 48.0 ⊀20 ਅ | 48,3 | 49.4 | 50,0 | 49.4 ∜`440 6` | 50.2 | | |
| | 切り | 118.9 | 120.7 | 121.9 | 122,4 | (12 <u>1</u> 5); | 120.5 | 1 (4.4) | 119,0 | | | |
| Residual Fuel Oil | 41.2 | 41.7 | 43.3 | 43.7 | 44.9 | 45.1 | 45.3 | 47.7 | 48.7 | 50.1 | | |
| Linfinished Oils | 105,6 | 104,2 | 103.8 | 103,4 | Eact C | 1737 | · * * * * * * * * * * * * * * * * * * * | 108.2 | 1114 | | | |
| Other Oils ³ | E196.2 | E196,0 | E195.7 | ⁶ 195.4 | E201.2 | E200.5 | E199.7 | E198.8 | =198.1 | E197.1 | | |
| Total (Excl. SPR) | 1,067.0 | 1.070.5 | | 1.086.5 | | | | 10858 | | | | |
| Chapt Crim 9.884 | | | 5.73.5 | 576.6 | » 1 | '1 | 777 | 57 ° ë | 577.9 | | | |
| Tera (15) 5 (17) | 1 347 | 2.00 | 1 635.1 | 643 | 625.5 | ne3 1 | 5573 | * 6-03.3 | 1,670,3 | · 30 | | |
| | | | | | | | | | | | | |

Product stocks include those stocks held at refineries, in pipelines, and at bulk terminals. Stocks held at natural gas processing plants are included in *Other Olis* and in totals. All stock levels are as of the end of the period.

Crude oil stocks include those stocks held at refineries, in pipelines, in lease tanks, and in transit to refineries, and do not include those held in the Strategic

Petroleum Reserve.

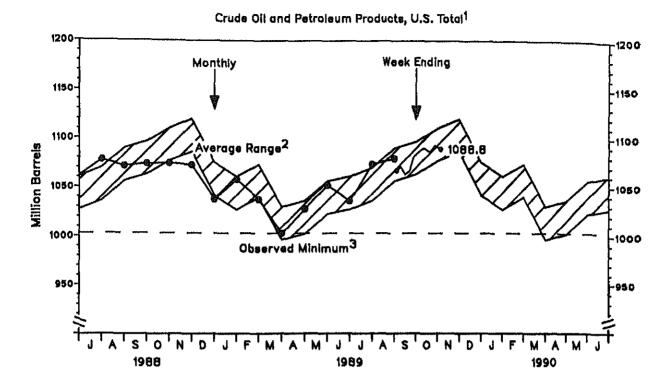
Source: See page 25.

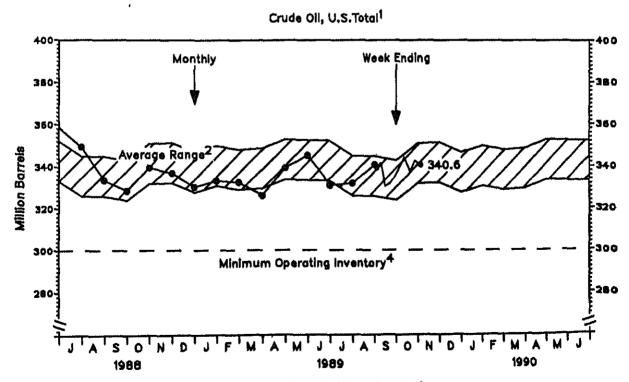
Included are stocks of all other oils such as aviation gasoline, kerosene, natural gas liquids and LRG's, other hydrocarbons and alcohol, aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, special naphthas, jube oils, waxes, coke, asphalt, road oil, and miscellaneous oils.

E=Estimated, See Glossary for definition of "Stock Change (Refined Products)" for explanation of other oils estimation methodology.

Note: Data may not add to total due to independent rounding.

Figure 2. Stocks of Crude Oil and Petroleum Products (Million Barrels)





Excludes stocks held in the Strategic Petroleum Reserve and Includes crude oil in transit to refineries.

Average level and width of average range are based on 3 years of monthly data: July 1986 - June 1989. The seasonal pattern is based on 7 years of monthly data. See Appendix for further explanation.

The observed minimum for total stocks in the last 36-month period was 1003.2 million barrels, occurring in March 1989. See Appendix for further explanation.

The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1988 study, the NPC estimated this inventory level for crude oil to be 300 million barrels. See Appendix for further explanation.

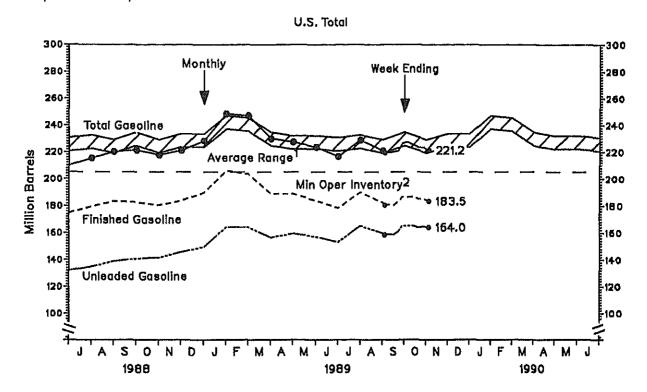
Source: See page 25,

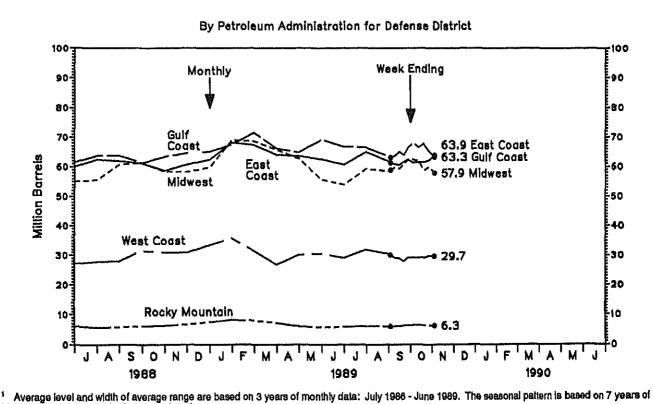
Stocks of Motor Gasoline By Petroleum Administration for Defense District (PADD) (Million Barrels)

| | · / | | | | | | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | بمسخدنا البيبيدي | |
|----------------------------|-------------|-------------|---------------------|---------------|-------------------|-------|-------|-------|-------|--|------------------|--------------|
| | Jan | Feb | Mar | Apr | Мау | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| or Gasoline | 210,6 | 208,6 | 205,0 | 201,0 | 195,9 | 192,6 | 186.9 | 186.0 | 191,2 | 181.8 | 188.1 | 188,8 |
| | 70.7 | 68.7 | 65.1 | 59.4 | 57.6 | 55.6 | 54.7 | 53.8 | 55.0 | 51.6 | 53,5 | 53.1 |
| | 139,9 | 187,9 | 139.9 | 141.6 | 138,4 | 136,9 | 134,2 | 134.2 | 136.2 | 180,2 | 1,34.6 | 135.7 |
| ponents | 40.5 | 43,5 | 43,1 | 40,8 | 39,0 | 37.9 | 37.5 | 38.5 | 38.5 | 36.2 | 37.1 | 37.4 |
| 1 | 251,1 | 250,1 | 248.1 | 241,8 | 234,9 | 230,4 | 228.4 | 226.5 | 229,6 | 549'0 | 225.2 | 226,2 |
| (PADD I) | 74.3 | 68.5 | 69.0 | 68.9 | 65.5 | 66.7 | 69.5 | 67.0 | 64.4 | 59.9 | 63.1 | 63.0 |
| ADD II) | 71.4 | 70,2 | 68.5 | 66,9 | 63,5 | 58,0 | 56.7 | 59,9 | 61.2 | 57,5 | 61.9 | \$1,2 |
| (PADD III) | 68.3 | 72.9 | 72.6 | 68.0 | 66,4 | 66.9 | 63.4 | 63,6 | 66.4 | 65.1 | 64.6 | 65,9 |
| ntein (PADD IV) | 8.0 | 8,5 | 8.4 | 8,0 | 7.4 | 6.1 | 5.4 | 5,7 | 6,1 | 5.7 | 6,1 | 6,9 |
| (PADD V) | 29.1 | 30.0 | 29,5 | 30.5 | 32.1 | 32.7 | 31.5 | 30.4 | 31.5 | 29,9 | 29.5 | 29.4 |
| r Gasoline | 8,003 | 203.0 | 194.4 | 190,1 | 188.8 | 174,9 | 179,4 | 183,5 | 182.7 | 180.4 | 183.9 | 189.6 |
| * ** * | 53,9 | 51.5 | 48.8 | 47.1 | 44.9 | 42.7 | 44.6 | 44.5 | 41.9 | 38.7 | 38.2 | 40.2 |
| | 146.9 | 151,5 | 145,6 | 149,1 | 144.0 | 132,2 | 134.9 | 139,0 | 140.8 | 141.7 | 145.7 | 149.7 |
| ponents | 39.5 | 38,4 | 37.3 | 36.6 | 37.3 | 35.2 | 35,8 | 36,6 | 38.7 | 37.3 | 37.3 | 38.6 |
| , | 240,3 | 241.4 | 231,7 | 226.7 | 226,1 - | 210,1 | 215,3 | 220.1 | 221,3 | 217.7 | 221.2 | 228,4 |
| (PADD I) | 68.4 | 71.3 | 68.2 | 63.7 | 63.3 | 60.1 | 62.5 | 61.9 | 61.2 | 58.7 | 60.7 | 62.5 |
| ADD II) | 634 | \$6,8 | 66.3 | 63.0 | 63,4 | 55,0 | 55.6 | 60.7 | 61.3 | 58,4 | 58.3 | 59,8 |
| (PADD III) | 68.9 | 64.7 | 61.0 | 62.3 | 62.8 | 61.6 | 63.7 | 63.7 | 61.3 | 63,4 | 64.6 | 65.1 |
| ntain (PADD IV) | 7.A | 7,9 | 7.6 | 7.1 | 8,8 | 6,2 | 5.7 | 5.8 | 6.1 | 6.3 | 6,7 | 7.5 |
| (PADD V) | 32,2 | 31.2 | 28.7 | 30,6 | 29.9 | 27.2 | 27.8 | 28,0 | 31.5 | 30.9 | 30.9 | 33.5 |
| r Gasoline | 205,8 | 203,6 | 189.0 | 188,9 | 183,9 | 178,4 | 190.2 | 182,4 | | | | |
| , | 41.5 | 39.5 | 32.4 | 29,4 | 26.8 | 25.2 | 25.1 | 22.7 | | | | |
| | 164.2 | 164.1 | 166.7 | 159,41 | 157.1 | 153,1 | 165.1 | 159,7 | | | | |
| ponents | 42,8 | 43.5 | 41.0 | 38.6 | 39.7 | 38.2 | 38.7 | 38.4 | | | | |
| | 248.5 | 247.1 | 230.0 | 227,5 | 223,6 | 216.6 | 228.9 | 220,8 | | | | |
| (PADD I) | 68.1 | 67.4 | 64.1 | 63.6 | 62,6 | 60,7 | 65.0 | 61.9 | | | | |
| (I) QQI | 69,0 | 68.7 | 65.8 | 62.8 | 55.6 | 54,0 | 59.3 | 58,6 | | | | |
| PADD III) | 67.5 | 71.6 | 66.2 | 64.9 | 69,2 | 66.8 | 66.5 | 63.6 | | | | |
| itain (PADD IV) | 8.2 | 8,0 | 7.2 | 6,1 | 5,7 | 5,9 | 6.2 | 6,0 | | | | |
| (PADD V) | 35.7 | 31.5 | 26.8 | 30,1 | 30,6 | 29,2 | 31.9 | 30.6 | | | | |
| | 09/01 | 09/08 | 09/15 | 09/22 | 09/29 | 10/06 | 10/13 | 10/20 | 10/27 | 11/03 | | |
| · Gasoline | 180,5 | 180,9 | 180.5 | 183.4 | 186,9 | 186,6 | 186,8 | 185,3 | 185,4 | 183,5 | | · |
| · rmer | 22.0 | 21.9 | 21.7 | 22.4 | 21.8 | 21.5 | 21.3 | 21.4 | 20.4 | 19.5 | | |
| | 158,5 | 159,0 | 158.8 | 161.0 | 165,1 | 165.1 | 165.5 | 163,9 | 165,0 | 184,0 | | |
| ponents | 38,9 | 38,6 | 39.5 | 37,5 | 39,8 | 41.1 | 38.9 | 38,3 | 38.2 | 37.7 | | |
| • - | 219,4 | 219,6 | 220.1 | . 221,0 | 226,7 | 227.6 | 225.7 | 223,6 | 223.6 | 221,2 | | |
| PADD İ) | 61,3 | 8,08 | 60.6 | 61.7 | 62.5 | 61.4 | 61.5 | 61.6 | 62,2 | 63.9 | | |
| IDD II) | 58,9 | 59,8 | 59.4 | \$1, 0 | 62.3 _: | 2012 | 62.0 | 58,8 | 59,9 | 57.9 | | |
| PADD (II) | 63,1 | 63,7 | 65.0 | 64.0 | 66,4 | 68.0 | 66.6 | 67.7 | 65.2 | 63,3 | | |
| | | | | | 6.0 | ₿,4 | 6.4 | 6.4 | 6,3 | · ` 6,8 | | |
| tain (PADD (V) (PADD V) | 6,0 30.1 | 6,1 29.2 | <i>6.</i> 1 29.0 | 6.3 28.0 | 6,3 29.1 | 29.3 | 29.2 | 29.1 | 29.8 | 29.7 | | |

 $[\]ensuremath{\mathsf{ID}}$ data may not add to total due to independent rounding. See page 25,

Figure 3. Stocks of Motor Gasoline (Million Barrels)





begin to appear in a defined distribution system. In its 1988 study, the NPC estimated this inventory level for total motor gasoline to be 205 million barrels. See Appendix for further explanation.

Source: See page 25.

monthly data. See Appendix for further explanation.

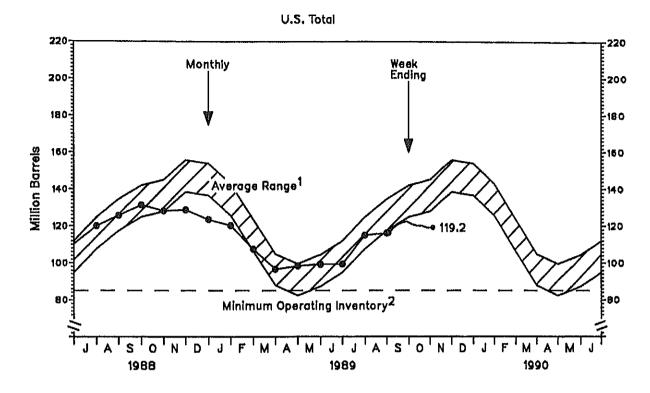
The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the inventory level below which operating problems and shortages woulk

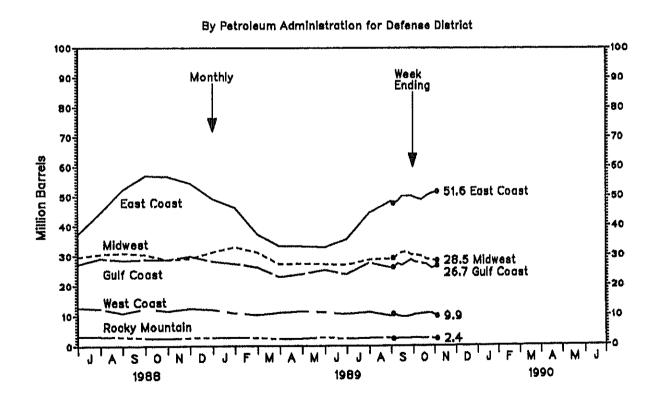
Table 5. Stocks of Distillate Fuel Oil by Petroleum Administration for Defense District (PADD) (Million Barrels)

| HOURD HORITINI) | 0) | | | | | | | | | | | |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|-------|
| Year/District | Jan | Feb | Mar | Арг | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| 1987 | | | | ···- | | | | | | | | |
| Total U.S | 141.5 | 123 7 | 100.3 | 100.3 | 101.3 | 104,4 | 1146 | 124.7 | 126 8 | 121 0 | 128.0 | 34 5 |
| East Coast (PADD I) | 65.3 | 48.9 | 415 | 36: | 31.6 | 37.0 | 44.8 | 52.5 | 52.4 | 53 4 | 52.1 | 53.8 |
| Makest (PADD I.) | 310 | 533 | -03 | 29.1 | 23.7 | 8 68 | 298 | 31.9 | 31.5 | 26,7 | 33.1 | 34.6 |
| Gulf Coast (PADD III) | 27 7 | 27 ô | 23 9 | 226 | 240 | 25 0 | 276 | 29.5 | 29 4 | 28 2 | 29 2 | 3:.5 |
| Rocky Mountain (PADD 'V) | 3.2 | 3.3 | S 1 | 27 | 2,7 | 2.5 | 25 | 26 | 26 | 23 | 2.6 | 3.1 |
| Wood Coast (PADD V) | 11 1 | 10.8 | 10 4 | 9.8 | 11.4 | 11.0 | 99 | 102 | 10.8 | :04 | 11.0 | 116 |
| 1988 | | | | | | | | | | | | |
| Total U.S. | 128,1 | 110.3 | 89.8 | 95.0 | 104.9 | 110,4 | 119,9 | 125.7 | 131,4 | 128.2 | 128.8 | 123,5 |
| East Coast (PADD I) | 48.1 | 44.4 | 33.0 | 30.0 | 34.9 | 37.4 | 44.7 | 52.3 | 57.0 | 56.7 | 54.6 | 49.2 |
| Midwest (PADD II) | 34.4 | 29,8 | 233 | 26,6 | 28.9 | 29.7 | 30.8 | 31,0 | 30.5 | 28.7 | 29.2 | 31,3 |
| Gulf Coast (PADD III) | 31.7 | 23.1 | 21.8 | 24.7 | 25.4 | 27.3 | 29.2 | 28.5 | 28.9 | 28.8 | 29.9 | 28.2 |
| Rocky Mountain (PADD IV) | 3,3 | 3,2 | 2.3 | 2,4 | 2,9 | 3,2 | 3.2 | 9,0 | 2.7 | 2.5 | 2.7 | 2.8 |
| West Coast (PADD V) | 10.6 | 9.7 | 9.5 | 11.3 | 12.8 | 12.7 | 12.3 | 10.9 | 12.3 | 11.6 | 12.4 | 12.0 |
| 1989 | | | | | | | | | | | | |
| Total U.S. | 120.3 | 107.5 | 96.6 | 98,4 | 99.3 | 99.4 | 115.0 | 116.1 | | | | |
| East Coast (PADD I) | 46.3 | 37.2 | 33.3 | 33,2 | 32.9 | 35.6 | 44.5 | 48.4 | | | | |
| Midwest (PADD II) | 93.0 | 31.2 | 27.2 | 27.4 | 27.2 | 27.0 | 28.8 | 0.68 | | | | |
| Gulf Coast (PADD III) | 27.4 | 26.2 | 22.9 | 23.9 | 25.3 | 23.9 | 27.7 | 26.1 | | | | |
| Rocky Mountain (PADD IV) | 8,8 | 2.7 | 2.3 | 2,4 | 2,8 | 2.4 | 2.6 | 2,6 | | | | |
| West Coast (PADD V) | 10.8 | 10,3 | 11.0 | 11.5 | 11.1 | 10.6 | 11,3 | 10.0 | | | | |
| Week Ending: | | | | | | | | | | | | |
| 1989 | 09/01 | 09/08 | 09/15 | 09/22 | 09/29 | 10/06 | 10/13 | 10/20 | 10/27 | 11/03 | | |
| Total U.S. | 116.2 | 118,9 | 120,7 | 121,9 | 122,4 | 121.1 | 120,2 | 119,9 | 119,0 | 119.2 | | |
| East Coast (PADD I) | 47.7 | 48.5 | 50.1 | 50.1 | 50,3 | 49.5 | 49,0 | 50.3 | 51.1 | 51.6 | | |
| Midwest (PADD II) | 29.3 | 30.4 | 31,2 | 31,5 | 30.5 | 30,3 | 30,0 | 29,0 | 28.6 | 28,5 | | |
| Gulf Coast (PADD III) | 26.2 | 27.5 | 26.9 | 27.9 | 28.8 | 27,9 | 27.7 | 27,3 | 26.0 | 26.7 | | |
| Rocky Mountain (PADD IV) | 2.4 | 2.5 | 2,7 | 2,5 | 2.7 | 2.8 | 2,7 | 2,5 | 2,5 | 2,4 | | |
| West Coast (PADD V) | 10.6 | 10.1 | 9.8 | 9.8 | 10.1 | 10.5 | 10.7 | 10.9 | 10.8 | 9.9 | | |
| | | | | | | 1 - | | | . • . • | 2.0 | | |

Note: PADD data may not add to total due to independent rounding. Source: See page 25,

Figure 4. Stocks of Distillate Fuel Oil (Million Barrels)





Average level and width of average range are based on 3 years of monthly data: July 1986 - June 1989. The seasonal pattern is based on 7 years of monthly data. See Appendix for further explanation.

The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the inventory level below which operating problems and shortages would be appear in a defined distribution system. In its 1988 study, the NPC estimated this inventory level for distillate fuel oil to be 85 million barrels. See Appendix for further explanation. for further explanation.

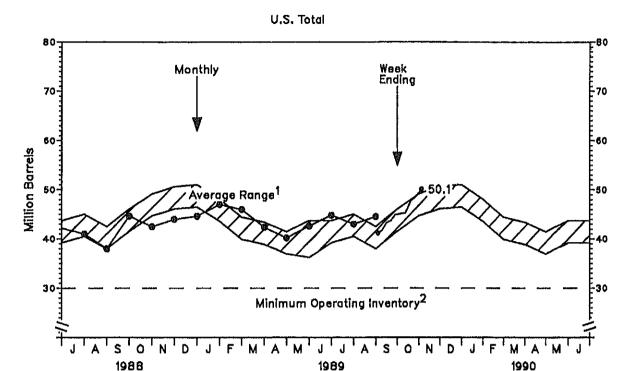
Source: See page 25.

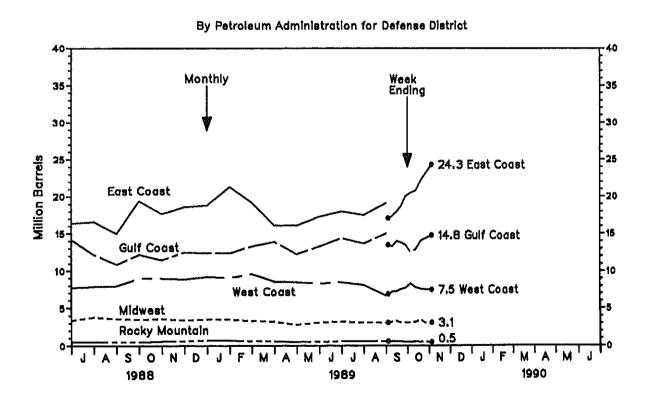
Table 6. Stocks of Residual Fuel Oil by Petroleum Administration for Defense District (PADD) (Million Barrels)

| Jan | Feb | Mar | Арг | May | Jun | Jul | Aug | Sep | Oct | Nov | Deo |
|-------|--|-------|--|-------------|-------|-------|-------|-------|-------|------|--|
| | | | | | | | | | | | |
| 44 9 | 59.1 | 39.3 | 35 9 | 40 4 | 41.4 | 44.7 | | | | | 47,4 |
| 2. 2 | 174 | 167 | 156 | 17.9 | 19.2 | 198 | | | | | 25.1 |
| 28 | 27 | 3 : | 3 1 | 2,8 | 2,7 | 2.9 | 30 | - | | | 3,0 |
| 11.9 | 10.4 | 106 | 93 | 11 1 | 11.6 | 13 4 | 121 | | | | 12,6 |
| 03 | CG | 04 | 0.4 | e ,c | 0,4 | 03 | | | | | 0,4 |
| 8.4 | 7.4 | 86 | 7.5 | 8 2 | 7.4 | 83 | 89 | 9.0 | 8 4 | 10.0 | 8,3 |
| | | | | | | | | | | 1 | |
| 460 | 45 * | 43.7 | 428 | 45.7 | 42 2 | 413 | | | | | 44.8 |
| 196 | 197 | 178 | 16 2 | 18.8 | 16.4 | 16.6 | 15 C | | | - | 18,8 |
| 32 | 3.1 | 29 | 32 | 3.2 | 3.4 | 3.8 | 36 | - | | - | 3,5 |
| 445 | 145 | 14 2 | 152 | 15 4 | 14.2 | 122 | 109 | 122 | | | 12.4 |
| 0,3 | 0.4 | 0.4 | 0,4 | 0.5 | 0.6 | 0.5 | 0.5 | 0,5 | 9,6 | | 0.7 |
| 8.3 | 7.5 | 8.5 | 7.8 | 7.8 | 7.7 | 7.9 | 8.0 | 9.0 | 9.0 | 8.9 | 9.2 |
| | | | | | | | | | | | |
| 47.0 | 46.0 | 42.4 | 40.2 | 42.6 | 44.8 | 43.0 | 44.5 | | | | |
| | | | | 17.3 | | | | | | | |
| | | | | | 3.2 | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 9.1 | 9.6 | 8,6 | 8.5 | 8.3 | 8.5 | 8,1 | 6.7 | | | | |
| | | | | | | | | | | | |
| 09/01 | 09/08 | 09/15 | 09/22 | 09/29 | 10/06 | 10/13 | 10/20 | 10/27 | 11/03 | | |
| | | | | 44.9 | | 45,3 | 47.7 | 48.7 | 50,1 | | |
| | | | | | | | 22.2 | 23.3 | 24.3 | | |
| | | | | | | | | | | | |
| | | | | | 12.6 | 12.9 | | | | | |
| 0.6 | | | | | | | | | | | |
| 6.9 | 7,2 | 7.3 | | 7.7 | | | | | | | |
| | 44.9 2.5 2.8 11.9 0.3 8.4 46.0 19.6 3.2 4.5 8.3 47.0 21.3 8.3 12.4 0,7 9.1 41.2 17.1 8.1 13.5 0.6 | 449 | 44.9 59.: 39.3 2-5 17.4 16.7 2.8 2.7 3: 11.9 10.4 10.6 0.3 0.3 0.4 8.4 7.4 8.6 46.0 45.4 43.7 19.6 19.7 17.8 3.2 3.1 2.9 4.5 1.5 14.2 0.3 0.4 0.4 8.3 7.5 8.5 47.0 46.0 42.4 21.3 19.2 16.1 3.5 3.3 3.2 12.4 13.3 13.9 0.7 0.6 0.6 9.1 9.6 8.6 09/01 09/08 09/15 41.2 41.7 43.3 17.1 17.4 18.0 3.1 3.2 3.3 13.5 13.3 14.0 0.6 0.6 0.6 | 44 9 | 44 9 | 44 9 | 44 9 | 449 | 449 | 44 9 | 44 9 SB.: 39 3 35 9 40 4 41.4 44.7 45 7 44 4 45 6 50 0 2 5 17 4 16 7 15 6 17.9 19.2 19 8 21 3 21 2 22 20 23 0 29 2.5 3.1 11.9 19.2 19 8 21 3 21 2 22 20 23 0 29 2.5 3.1 11.9 10.4 10 6 9 3 11 1 11.6 13 4 12 1 10.9 13 1 13.4 03 0.4 19.1 18.8 46.4 16.5 15.0 19.4 17.7 18.6 3.2 3.1 3.2 3.4 |

Note: PADD data may not add to total due to independent rounding. Source: See page 25.

Figure 5. Stocks of Residual Fuel Oil (Million Barrels)





Average level and width of average range are based on 3 years of monthly data: July 1986 - June 1989. The seasonal pattern is based on 7 years of

monthly data. See Appendix for further explanation.

The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1988 study, the NPC estimated this inventory level for residual fuel oil to be 30 million barrels. See Appendix for further explanation. Source: See page 25.

Figure 6. Imports of Petroleum Products By Product (Thousand Barrels per Day)

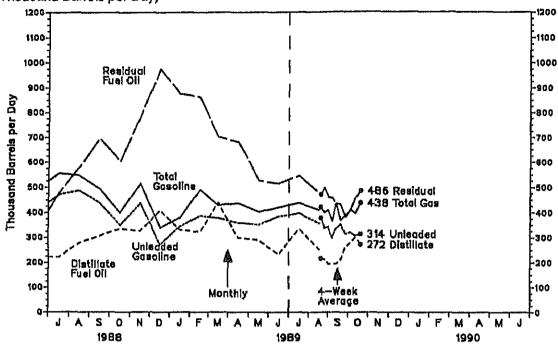


Table 7. Imports of Petroleum Products By Product (Thousand Barrels per Day)

| Year/Product | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---------------------------------------|-------|-----|------|-----|-----|-------------|------|-----|-----|-----|-----|-----|
| 1987 | | | | | | ···· | | | | | | |
| Total Motor Gascine | 474 | 372 | 419 | 404 | 366 | 412 | 515 | 494 | 467 | 451 | 548 | 385 |
| Finished Leaced | 57 | 16 | 35 | 12 | 22 | 37 | 69 | 22 | 51 | 26 | 75 | 27 |
| Finished Unleaded | 356 | 293 | 329 | 362 | 332 | 348 | 883 | 373 | 970 | 330 | 409 | 583 |
| Blending Components | 81 | 63 | 55 | 30 | 32 | 27 | 63 | 98 | 46 | 97 | 64 | 65 |
| .fl .6 | 1 7 | ••• | 1 | 6, | : ' | | | | 9,5 | ξ. | . 5 | 4 1 |
| 5 ty - 1 1 3 j | 2 | 5.3 | 6 30 | 19 | 4.3 | . i . | 3 - | 300 | | , i | • 1 | . 3 |
| Residual Fuel Oll | 701 | 668 | 559 | 476 | 505 | 481 | 721 | 512 | 526 | 414 | 568 | 650 |
| Other Petroleum Products ¹ | 529 | 759 | 657 | 643 | 572 | 738 | 604 | 661 | 769 | 739 | 697 | 714 |
| 1988 | | | | | | | | | | | | |
| Total Motor Gasoline | . 391 | 452 | 392 | 448 | 524 | 497 | 556 | 547 | 493 | 400 | 515 | 340 |
| Finished Leaded | 7 | 14 | 10 | 9 | 18 | 18 | 10 | 7 | 4 | 2 | 13 | 6 |
| Finished Unleaded | 350 | 383 | 339 | 390 | 420 | 410 | 472 | 487 | 439 | 850 | 438 | 271 |
| Blending Components | 34 | 55 | 43 | 49 | 87 | 69 | 74 | 53 | 50 | 48 | 64 | 63 |
| Je: Fuel | 55 | 70 | 9, | 84 | 112 | 75 | 38 | 103 | 61 | 146 | 79 | 74 |
| D.st llate =uol Oi! | 424 | 383 | 247 | 210 | 253 | 255 | 222 | 279 | 307 | 336 | 327 | 405 |
| Residual Fuel Oil | 805 | 901 | 650 | 495 | 432 | 336 | 479 | 581 | 698 | 603 | 785 | 975 |
| Other Petroleum Products ¹ | 814 | 800 | 690 | 866 | 809 | 784 | 852 | 787 | 735 | 793 | 939 | 698 |
| 1989 | | | | | | | | | | | * | * |
| Total Motor Gase ins | 390 | 490 | 420 | 487 | 403 | 42. | 438 | 410 | | | | |
| Finished Leaded | 4 | 5 | 3 | 12 | 5 | 7 ≈6 | 1,00 | 910 | | | | |
| E'ninhad , 'nladdyd | 345 | 367 | 378 | 359 | 352 | 365 | 397 | 357 | | | | |
| ents | 30 | 98 | 48 | 66 | 47 | 30 | 40 | 53 | | | | |
| | B# | 120 | 100 | 127 | 120 | 112 | 113 | 84 | | | | |
| | 331 | 322 | 429 | 299 | 290 | 233 | 335 | 254 | | | | |
| | 877 | 863 | 703 | 681 | 526 | 515 | 546 | 478 | | | | |
| | 946 | 853 | 729 | 745 | 693 | 674 | 691 | 733 | | | | |

| 3/29 | 10/06 | 10/13 | 10/20 | 10/27 | 11/03 | |
|-----------|-------|-------|-------|------------------|-------|--|
| 135 | 432 | 382 | 412 | 396 | 438 | |
| 12 | 12 | 0 | 24 | 24 | 24 | |
| 335 88 | 352 | 814 | 821 | 307 | 814 | |
| 88 | 68 | 68 | 67 | 65 | 100 | |
| 127 | :104 | 94 | 102 | 65 9 7 | 99 | |
| 195 | 211 | 263 | 278 | 301 | 272 | |
| 439 | 969 | 890 🧷 | 407 | 456 | 486 | |
| 706 | 773 | 674 | 700 | 663 | 603 | |

nd other oils.

Figure 7. Imports of Crude OII and Petroleum Products (Million Barrels per Day)

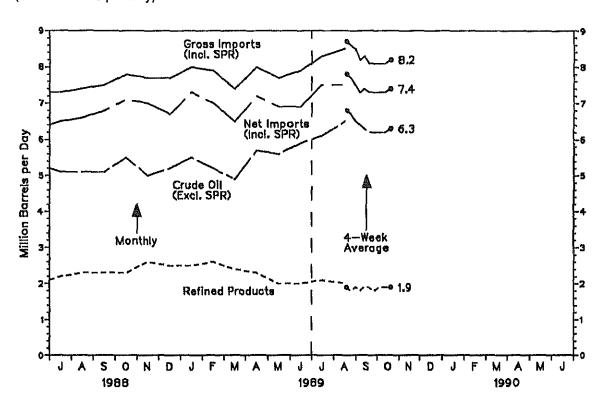


Table 8. Imports of Crude Oil and Petroleum Products (Million Barrels per Day)

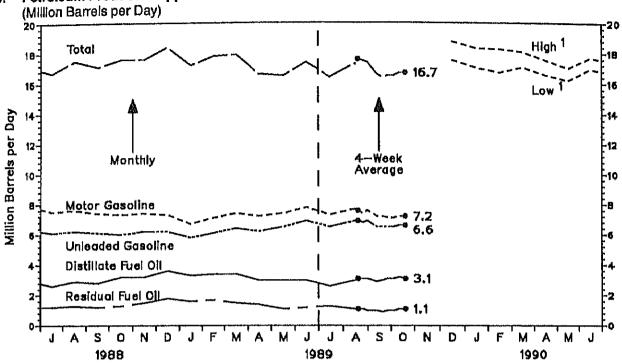
| (Million Ba | rreis per D | ay) | | | | | | | | | | |
|----------------------------|-------------|------------------|---------------------------------------|-------|--------------------|-------|-------|--------------------|-------|--------------|------------|--------------------|
| Year/Product | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | De |
| 1987 | | | · · · · · · · · · · · · · · · · · · · | * | | | | ···· | | | | |
| Crude Oil (Excl. SPR) | 4,3 | 3,8 | 3.7 | 4.1 | 4.2 | 4.7 | 5.2 | , 5.4 | 5.0 | . 5.1 | 4.9 | . 4. |
| SPR | 0.1 | 0,0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0. |
| Refined Products | ģ. Ď | 2,1 | 2.0 | 1,8 | 1.7 | 2.0 | 2.3 | 1.9 | 2.1 | 1.9 | 2.1 7.1 | 2, 6. |
| Gross Imports (Incl. SPR) | 6.4 | 6,0 | 5.8 | 5.9 | 6.1 | 6.8 | 7.6 | 7.5 | 7.2 | 7.1 | 7.1 | 6. |
| Total Exports ¹ | 0.7 | 1,0 | 0.7 | 6.0 | 0.7 | 0.7 | 0.7 | 0.7 | 8.0 | 0,6 | 0.7 | 1. |
| Net Imports (Incl. SPR) | 5.7 | 5.0 | 5.1 | 5.0 | 5.4 | 6.1 | 6.9 | 6.8 | 6.4 | 6.4 | 6.3 | 5. |
| 1988 | | | | | | | | | | | | |
| Crude Oil (Excl. SPR) | 4.6 | 4.6 | 4.8 | 5.1 | 5.3 | 5.3 | 5.1 | 5.1 | 5.1 | 5,5 | 5.0 | · 5, |
| SPR | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0. |
| Refined Products | 2.5 | 2,6 | 2.1 | 2.1 | 2.1 | 1.9 | 2.2 | 2.3 | 2.3 | 2.3 | 2.6 | 0.2.7 . 6 |
| Gross Imports (Incl. SPR) | 7.2 | 7.3 | 6.9 | 7,3 | 7.5 | 7.2 | 7.3 | 7.4 | 7.5 | 7.8 | 7.7 | 7 |
| Total Exports ¹ | 6.0 | 0.9 | 0.8 | Q.7 | 0.8 | 0.9 | 8.0 | 0.6 | 0.7 | 0.7 | 0.7 | (|
| Net Imports (Incl. SPR) | 6.3 | 6.4 | 6.1 | 6,6 | 6.7 | 6.3 | 6.5 | 6.6 | 6.8 | 7.1 | 7.0 | 6 |
| 1989 | | | | | | | | | | | | |
| Orude Oit (Excl. SPR) | చ,క | 5.2 | 4.9 | 5.7 | 5,6 | 5,9 | 6.1 | 6.5 | | | | |
| SPR | 0.1 | 0.1 | 0.1 | 0.1 | 0,1 | 0.1 | 0.1 | 0,0 | | | | |
| Refined Products | . 2,5 | 2.6 | . 24 | 2.3 | 2.0 | 2.0 | , 2,1 | 2.0 | | | | |
| Gross Imports (Incl. SPR) | 8,0 | 7.9 | 7.4 | 8,0 | 7.7 | 7.9 | 8.3 | 8.5 | | | | |
| Total Exports ¹ | 0.8 | 0.9 | 0.9 | 0.8 | | 1.0 | 0.8 | 1.0 | | | | |
| Net Imports (Incl. SPR) | 7.3 | 7.0 | 6.5 | 7.2 | 6,9 | 6,9 | 7.5 | 7.5 | | | | |
| Average for Four-Week Peri | od Endina: | | | | | | | | | | | |
| 1989 | 09/01 | 09/08 | 09/15 | 09/22 | 09/29 | 10/06 | 10/13 | 10/20 | 10/27 | 11/03 | | 1 1 29 2001 1 1 |
| Crude Oil (Exal, SPR) | 6,8 | 6.7 | 6.5 | 6.4 | 6,3 | 6,2 | 6.2 | 6.2 | 6,2 | 6.3 | | 75 7-4 |
| SPR | 0.0 | 0.1 | 0,1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | V . |
| Refined Products . 🕒 🖯 | 1.9 | 1.8 | 3.9 | 1.8 | 1,9 | 1,9 | 1.8 | | | ៊ូ វុម្ភ | | |
| Gross Imports (incl. SPR) | _8.7 | 8.6 | 8.5 | _8.2 | 8.3 | 8.1 | 8.1 | 8.1 | _8.1 | 8.2 | | |
| Total Exports' | E0.9 | [₽] O,Ω | 1.0 | B1.0 | , ^E 0.9 | E0.9 | 8.0 | * ^R 0,8 | 0.8 | E0.9 | | |
| Net Imports (Incl. SPR) | 7.8 | 7.7 | 7.5 | 7.3 | 7.4 | 7,3 | 7.3 | 7.3 | 7.3 | 7.4 | | |

Includes exports of crude oil and refined petroleum products. Crude oil exports are restricted to (1) crude oil derived from fields under the State waters o Alaska's Cook Inlet, (2) certain domestically produced crude oil destined for Canada, and (3) shipments to U.S. territories. E-Estimate based on data published for the most recent month in the *Petroleum Supply Monthly*.

Note: Data may not add to total due to independent rounding.

Source: See page 25.

Figure 8. Petroleum Products Supplied



¹ Projected. See Appendix for explanation of derivation of values.

Table 9. Petroleum Products Supplied (Million Barrels per Day)

| (Million Barr | eis bei r | ay) | | | | | ······································ | | | | | |
|------------------------------|-----------|------------|-------|-------|-------|-------|---|-------|-------|-------|------|------|
| Year/Product | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| 1987 | | | | | | | | | | | | |
| Finished Motor Gasoline | 6.5 | 6.8 | 7.0 | 7.3 | 7,5 | 7,5 | 7.6 | 7.3 | 7.2 | 7,\$ | 7.2 | 7.3 |
| Leaded | 1.7 | 1.7 | 1.8 | 1.9 | 1.9 | 1.9 | 1.8 | 1.7 | 1.7 | 1.7 | 1.6 | 1.5 |
| . Unjegded | 4.8 | 5.1 | 5.2 | 5.4 | 5,6 | 5,7 | 5.7 | 5,7 | 5.5 | 5.6 | 5.6 | 5.7 |
| Jet Fuel | 1.4 | 1.4 | 1.4 | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 | 1.5 | 1.4 | 1.5 |
| Distillate Fuel Oil | 3.3 | 3.3 | 4.1 | Ó.È | 2.7 | 2,8 | 2,7 | 2.6 | 2.8 | 3.2 | 2,9 | 8,3 |
| Residual Fuel Oil | 1.5 | 1.5 | 1.2 | 1,2 | 1.0 | 1.2 | 1.3 | 1.2 | 1.3 | 1.1 | 1.2 | 1.4 |
| Other Oils | 4.0 | 3.8 | 3.5 | 3.7 | 3,5 | 3,9 | 4.1 | 3.9 | 4.0 | 3.9 | 3.7 | 4.0 |
| Total | 16.7 | 16.9 | 16.2 | 16,5 | 16.0 | 16.8 | 17.1 | 16.3 | 16.7 | 16.9 | 16.3 | 17.4 |
| 1988 | | | | | | | | | | | | |
| Finished Motor Gasoline | 6.7 | 7.0 | 7,8 | 7,4 | 7.8 | 7.â | 7.5 | 7.6 | 7.4 | 7,3 | 7.4 | 7.3 |
| Leaded | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 | 1.5 | 1.3 | 1.3 | 1.3 | 1,3 | 1.2 | 1.1 |
| - Unleaded | 5,4 | 5,6 | 6,9 | 6,0 | 5,9 | 6.3 | 6.1 | 6.2 | 6,1 | 6.0 | 6.2 | 6.2 |
| Jet Fuel | 1.6 | 1.5 | 1,4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.5 | 1.4 | 1.5 |
| Distillate Fue Of | 53 | 3.6 | 3.5 | 2.9 | 2.9 | 2.9 | 2.6 | 2.9 | 28 | 3.2 | 32 | 26 |
| Residual Fuo CI | 1.7 | 17 | 15 | 13 | CĐ | 1,1 | 1.2 | 1.3 | 12 | . 3 | 1.5 | 18 |
| Citor O s | 5.9 | 4 C | 39 | 30 | 36 | 3.9 | 40 | 4,3 | 42 | 4,3 | 4.1 | 42 |
| Тога | 17.4 | 1"3 | 176 | 16 8 | 16.2 | 17,1 | 6.7 | 17.5 | 17 1 | 176 | 176 | 164 |
| 1989 | ••• | | , , | | , 4.0 | ••• | . • • • • • • • • • • • • • • • • • • • | | | ••• | | |
| Finished Motor Gasoline | 6,7 | 7.1 | 7.4 | 7.2 | 7,4 | 7.8 | 70 | 7.7 | | | | |
| Feaded | 1.0 | 1.6 | 1.0 | 0.9 | 0.9 | 0,9 | 7.3 0.8 | 0.8 | | | | |
| Unleaded | 5,8 | 6.1 | 6.4 | 6,2 | 6,5 | 6.9 | 6.5 | 6.9 | | | | |
| Jet Fuel | 1.5 | 1.5 | 1.5 | | | 0.8 | 9.0 | 1.5 | | | | |
| Distillate Fuel Oil | 3,3 | | | 1.4 | 1,3 | 1.5 | 1.4 | 3,0 | | | | |
| Residual Fuel Oil | 1.6 | 3.4 1.7 | | 8.0 | 3,0 | 3.0 | 2.6 | 1.1 | | | | |
| Other Ors | | 1.7 | 1.5 | 1.4 | 1.1 | 1.2 | 1.3 | | | | | |
| Tota. | 4 1 | 4 3 | 4 3 | 36 | 37 | 3.6 | 38 | 4.0 | | | | |
| | 172 | 1"8 | 17.9 | 16.6 | 16.E | 17.4 | 16 4 | 17.3 | | | | |
| Average for Four-Week Period | | | | | | | | | | | | |
| 1989 | 09/01 | 09/08 | 09/15 | 09/22 | 09/29 | 10/06 | 10/13 | 10/20 | 10/27 | 11/03 | | |
| Finished Motor Gasoline | 7.6 | 7.4 | 7.8 | 7.A | 7,2 | 7.2 | 7.1 | 7.1 | .7.2 | 7.2 | | |
| Leaded | 0.7 | 0.7 | 0,7 | 0.7 | 0.7 | 0.7 | 0.6 | 0.6 | 0,6 | 0,6 | | |
| Unleaded / | 6.9 | 6.8 | 6.9 | 6.7 | 8,5 | 6.5 | 8.5 | 6,6 | .6.6 | ,6,6 | | |
| Jet Fuel | 16 | 1.6 | 16 | 1.6 | 16 | 1.6 | 1.5 | 1.6 | 1.5 | 1.5 | | |
| Dist Late Fuel Cit | 3 1 | 3.1 | 3,1 | 3.0 | 2,9 | 30 | 3 1 | 3.1 | 3 2 | 3.1 | | |
| Residual Fuel Oil | 1.* | 1.1 | 1.0 | 1.0 | - o | 09 | 1.0 | 10 | 11 | 11 | | |
| Other Cils | 42 | 4.2 | 4.1 | 4.0 | 3 9 | 38 | 3,7 | 3,7 | 37 | 3.7 | | |
| Total | 176 | 17.5 | 17.4 | 17.0 | 16.6 | 16 4 | 16.5 | 16 5 | 16 7 | 16 7 | | |
| Mala: Dela-series | | | | | | | | | | | | |

Note: Data may not add to total due to independent rounding.

Source: See page 25.

Table 10. Refiner Acquisition Cost of Crude Oil (Dollars per Barrel)

| Year/Type | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| 1986 | | | | | | | | | | | | |
| Domestic | 25,91 | 20.31 | 15,02 | 13,01 | 12,99 | 13.12 | 11.44 | 11,97 | 13.29 | 13,20 | 13,22 | 13,66 |
| Imported | 24,93 | 18.11 | 14.22 | 13.15 | 13.17 | 12,25 | 10.91 | 11.87 | 12.85 | 12.78 | 13.46 | 14.17 |
| Composite | 25.63 | 19.76 | 14.80 | 13,05 | 13,05 | 1283 | 11.26 | 11,93 | 13.13 | 13.05 | 13,50 | 19,84 |
| 1987 | | | | | | | | | | | | |
| Domestic | 16,01 | 16,77 | 16.93 | 17,21 | 17.63 | 18.33 | 19.04 | 19,39 | 18,57 | 18.36 | 17,94 | 17,02 |
| Imported | 16.45 | 16.98 | 17.26 | 17.89 | 18,25 | 18.71 | 19.26 | 19.32 | 18.57 | 18.53 | 18.14 | 17,20 |
| Composite | 16,16 | 16,83 | 17,04 | 17,44 | 17,85 | 18.47 | -19.13 | 19.36 | 18,57 | 18,43 | 18,02 | 17,09 |
| 1988 | | | | | | | | | | | | |
| Domestic | 15,82 | 15.61 | 14.92 | 15.88 | 16,35 | 15.88 | 14.65 | 14.86 | 13.97 | 12.90 | 12.61 | 18.88 |
| Imported | 16.10 | 15.61 | 14.82 | 15,69 | 16,02 | 15,52 | 14.80 | 14.37 | 13.90 | 13.03 | 12.54 | 14.08 |
| Composite : | 15.92 | 15.61 | 14.88 | 15.81 | 16.22 | 15,71 | 14.71 | 14.36 | 13.94 | 12.96 | 12.58 | 13.97 |
| 1989 | | | | | | | | | | | | |
| Domestic | 15,49 | 16,11 | 17.39 | 18,92 | 19.02 | 18.56 | 18.31 | P17.23 | | | | |
| Imported | 15,98 | 16.59 | 17.77 | 19,59 | 19.06 | 18.27 | 17.97 | P17.23 | | | | |
| Composite | 15,70 | 16.31 | 17.55 | 19,22 | 19,03 | 18,43 | 18.16 | 17.23 | | | | |

P=Preliminary.

Average Retail Selling Prices of Motor Gasoline and Residential Heating Oil (Cents per Gallon, Including Taxes) Table 11.

| Year/Product | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|--------------------------------------|-----------|-------|-------|---------------|------------|---------------------------|----------------|---------------|-------|--------------|-------|-------|
| 1986 | | | | | | | | | | | | |
| Motor Gasoline | | | | | | | | | | | | |
| Leaded Regular | 110.7 | 103,4 | 89.4 | 81,5 | 65.2 | 88.5 | 82.2 | 77.8 | 79.7 | 77.1 | 76.2 | 76.4 |
| Unleaded Premium | 133.6 | 128.2 | 116.0 | 106.1 | 107.5 | 110.0 | 104.5 | 99.9 | 101.0 | 98.7 | 98.0 | 98.4 |
| Unleaded Regular | 119.4 | 112.0 | 98.1 | 88.8 | 92.3 | 95.5 | 0.08 | 84.3 | 86.0 | 83.1 | 82.1 | 82.3 |
| All-Types | 119.0 | 111.9 | 98,3 | 89.5 | 92.7 | 95.8 | 89.5 | 84.8 | 86.4 | 83.7 | 82.7 | 83,0 |
| Residential Heating Oil ¹ | 106.4 | 95.8 | 88.7 | 80.7 | 77,4 | 72.9 | 66.9 | 66.4 | 68.5 | 67.8 | 69.8 | 72.5 |
| 1987 | | | | | | | | | | | | |
| Motor Gasoline | | | | | | | | | | | | |
| Leaded Regular | 80.6 | 84.8 | 85,6 | . 670 | 8.88 | no e | 92.1 | 94,6 | 94.0 | 99.1 | 92,8 | 91,2 |
| Unleaded Premium | | | 105.2 | 87,9 107,3 | 107.9 | 90, 6 109.8 | 111.5 | 113.9 | 113.6 | 112.8 | 112.5 | 111.9 |
| | 100.7 | 104.7 | | | | | | | 99.0 | | 97.6 | 98.1 |
| Unleaded Regular | 86.2 | 90,5 | 91,2 | 93.4 | 94.1 | 95, 8 96.6 | 97.1 98.0 | 99,5 100,4 | 100.0 | 97.6 98.8 | 98.7 | 97.5 |
| All-Types | 8.88 | 91.1 | 91.8 | 94.0 | 94.8 | | | | | | | |
| Residential Heating Oil ¹ | 78.5 | 79.9 | 79.1 | 78.7 | 78.6 | 77.8 | 78.7 | . 78,8 | 789 | 81.3 | 83,5 | 84.0 |
| 1988 | | | | | | | | | | | | |
| Motor Gasoline | | | | | | | | | | | _ | |
| kratina Seguar | 94 1 | 1.5 | 1 | 0,6 % | ',' | | | 5.5% | 60.0 | 21.0 | 50.4 | ë.s 5 |
| to and on the state | • : • : : | | | , l ë | •• • • | • • | · · · · | 1.5 | |) | | 1. |
| uradek = p. r | 93 3 | 6 3 | 9. 4 | 93 C | 5: 5 | 77.5 | '- ;" • | 4.5 | | 13.15 | 9 | 93.9 |
| All-Types | 94.7 | 92.8 | 92.0 | 94.6 | 97.0 | 97.1 | 98.4 | 100,4 | 99,2 | 97.5 | 97.2 | 95,3 |
| Residential Heating Oil* | 84.9 | 84.0 | 83.8 | 83.2 | 81.9 | 79.3 | 77.0. | 74.0 | 75.3 | 75.3 | 77.4 | 81,6 |
| 1989 | | | | | | | | | | | | |
| Motor Gasoline | | | | | | | 447.5 | | 400.7 | | | |
| Leadod Regular | 87.6 | 88.6 | 90.7 | 104.7 | 109 B | 109 3 | 107.5 | 103 4 | 100.7 | | | |
| Unleaded Promium | 109 1 | 110.0 | 1115 | 122.1 | 127 8 | 127 8 | 126 4 | 123 3 | 121.3 | | | |
| Unleaded Rogular | 918 | 926 | 94.0 | 106.5 | 111.9 | 111.4 | 109.2 | 105.7 | 102 9 | | | |
| All-Typos | 94 4 | 95 5 | 974 | 109 8 | 115 2 | 115.0 | 1132 | 109 6 | 107 3 | | | |
| Resident at Heating Oil 1 | 85 O | 85.5 | 87.1 | 876 | 86 7 | 84.2 | P82 2 | NA | NA | | | |

Residential heating oil prices do not include taxes.
 NA=Not Available.
 P=Preliminary.
 Source; See page 26.

World Crude Oil Prices1 Table 12. (Dollars per Barrel)

| | Type of Crude/API | In Effect: | | | | | | | | | |
|----------------------------|--|------------|------------------|----------|----------|----------|----------|----------|-----------|--|--|
| Country | Gravity ² | 3 Nov 89 | 27 Oct 89 | 1 Jan 89 | 1 Jan 88 | 1 Jan 87 | 1 Jan 86 | 1 Jan 85 | 31 Dec 76 | | |
| OPEC | | | | | | | | | | | |
| Sch Arba | Arrest Apartar | 17.71 | | | 4.54 | ., ., | 5e 10 | Williams | 7.70 | | |
| Sec. 7 : " | i i Arisa Mariji Sil | • • • | | | | 5.5 | # 17 7 | e | 2. Ž | | |
| Saud Arabja | Arabian Huayy 27" | 15,55 | 15 30 | 11 50 | 16.27 | 14 96 | 26 CO | 26 50 | 1202 | | |
| Abu D!-apl | Murcan 391 | 17 20 | 1720 | 13 70 | 17.92 | 15 55 | 28 15 | 29 31 | 13 26 | | |
| D .bai | Fa:31 62' | 16, 0 | 16 10 | 13.70 | 15.20 | 17.42 | 26,80 | 28 86 | 12 64 | | |
| Qafar | Dukาลา 40° | 16 75 | 16 65 | 15 45 | 15 70 | 15 30 | 2n 1n | 29 24 | 12 10 | | |
| ' 1 ₁ | 70 a 1 31 | | ž*; | - | 2.75 | • • • | 20 T 2 | 23.1 | 1.27 | | |
| a | or Face 81 | • | •. | | •) | * | | , | 2.39 | | |
| raci | Kirkuk Blanc 361 | 17,95 | 17.65 | 14 40 | 16 20 | 17.60 | 28.18 | 29 83 | 13 17 | | |
| Kuwalt | Kuwr. : B'or a 31° | 15.75 | 15.80 | 12 30 | 16.67 | 16.70 | 27.10 | 27.55 | :2 22 | | |
| Neutral Zone | Khalji 28⁺ | 15.45 | 15,30 | 11,90 | 16.27 | 14,96 | 26,03 | 26,53 | 12,03 | | |
| Algeria | Saharan Blend 44* | 19.35 | 19.20 | 16.10 | 18,87 | 17.30 | 29,50 | 30,50 | 14.10 | | |
| Nigeria | Bonny Light 87° | 19,40 | 19,20 | 15,05 | 18,92 | 17,13 | 28,65 | 28,00 | 15.12 | | |
| V igeria | Forcados 31' | 19.40 | 19.20 | 15.95 | 18.52 | 17.21 | 28.05 | 27.50 | 13 70 | | |
| .lcya | Es S do: 37" | 18,05 | 18 45 | 15.40 | · ē.52 | 16 95 | 30 15 | 30 15 | 1368 | | |
| ndones a | Minas 341 | 17.45 | 17 35 | 5 50 | · 7.56 | 16 28 | 28 53 | 29 53 | 13 55 | | |
| /enezuola | ™a Juana L'girt 3'' | 19.07 | 19 07 | 12 27 | ·7 62 | 15 10 | 28 C5 | 29 84 | 13 54 | | |
| /enezue a | Bachacupro 241 | 16.87 | 15 59 | 11 45 | 14 26 | 13 44 | 25 85 | 27 03 | 12 39 | | |
| 4. 17. 3 | Because 15 The | * | 4 | • " | | | 63 °C | 25:0 | | | |
| 3 Laj | March 1 | 7 - 3 | •• | | " : | • 3 • | 7,170 | <u>.</u> | | | |
| Échagor : | Oriente 30' | 16.56 | 16,36 | 19,56 | 15.46 | 15,86 | 26,15 | 27,50 | 12,35 | | |
| Total OPEC ³ | NA | 17.03 | 16.91 | 13.36 | 16.77 | 16.10 | 27.81 | 28.43 | 13.03 | | |
| Non-OPEC | | | | | | | | | | | |
| ments grant | B 7100 d 30 | 21.1 | ₹ ⁻ . | | • | 9.25 | 20 m | 100 A | | | |
| | Let $\mathbf{A} \cdot \mathbf{B} = (-2)^n$ |) | • • ; | | 5 | 213 | 7.1 m | , | | | |
| reta | Modes I in a table | · * . 3 | £ 5 | | | | ٠,٨ | 5.5 | | | |
| ir a | 1577 | • | . • | • | # F 7 | | 1.7 | 1.2 | | | |
| viexico: | isthmus 33' | 18.10 | 17,20 | 14,53 | 14,83 | 17,00 | 26,21 | 29,00 | 13.10 | | |
| Mexico | Maya 22" | 14.95 | 14.50 | 10.63 | 11.10 | 14.00 | 21,93 | 25,50 | NA | | |
| Colombia | Cano Limon 30* | 17.60 | 17.45 | 15,20 | 15,85 | 17,50 | NA | NA | NA | | |
| \ngola | Cabinda 32' | 17.60 | 16,45 | 14.40 | 16 40 | 16.85 | NA | NA | NA | | |
| Camejoor | Kelo 34' | 18 10 | - / 95 | 14 90 | 16 20 | NA | NA | NA | NA | | |
| g,p: ⁴ | Sucz Bland 33* | 17.50 | 17 50 | 12 75 | 15 90 | 16 60 | 26 70 | 28 CO | 1291 | | |
|) 1 | Charles | • • | • • | + 5 | • | 5.70 | | 44. III. | 5.5 | | |
| jet j | $C \rightarrow c dA$ | 4 🔻 | • • | 1 | .r . | 1.7 | *,A | 5.5 | 1,3 | | |
| Aalaysia 🛴 📜 | Tapis Blend 44* | 18.45 | 17.70 | 12,40 | 18,40 | 14,15 | 27,25 | 29,85 | 14,30 | | |
| Brunel | Seria Light 37° | 18.20 | 17.45 | 13 75 | 18 50 | 14 10 | 28 35 | 29 60 ° | 14.15 | | |
| 85 M | (top-m. 0 m. 62) | 11.15 | • | | 111 | 11 92 | 2.5 | ie. | ; | | |
| 1 | Bign, 5" | • 3 | | • " | | 7.1 | £ 7, | 21 | 7.3 | | |
| otal Non-OPEC3 | NA | 17.90 | 17.41 | 14.06 | 16.21 | 16.44 | 26.14 | 28.16 | 13.44 | | |
| otal World ³ | NA | 17.31 | 17.07 | 13.58 | 16.57 | 16.24 | 27.10 | 28,33 | 13.08 | | |
| Inited States ⁶ | NA | 17.48 | 17.12 | 13.41 | 16.10 | 15.32 | 25.64 | 27,95 | 13,38 | | |

Estimated contract prices based on government-selling prices, netback values, or spot market quotations. All prices are f.o.b. at the foreign port of lading except where noted; 30 day payment plan except where noted. See Appendix for procedure used for calculation of world oil prices.

An arbitrary scale expressing the gravity or density of liquid petroleum products.

Average prices (f.o.b.) weighted by estimated export volume.

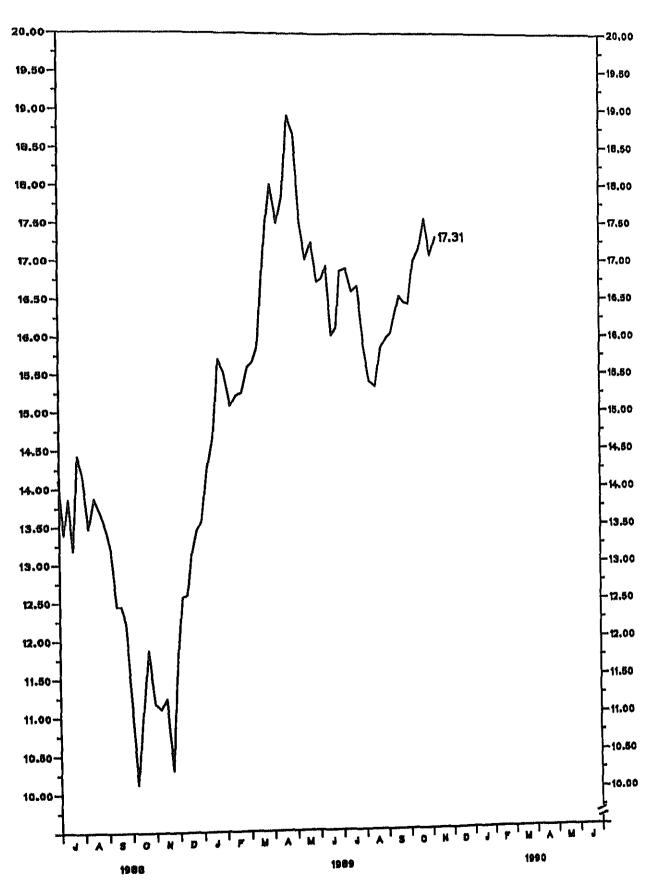
On 60 days credit.

Price (CIF) to Mediterranean destinations; also called Urals.

NA=Not Applicable. Source: See page 26.

Average prices (f.o.b.) weighted by estimated import volume.

Figure 9. World Crude Oil Price¹ (Dollars per Barrel)



¹ Average price (f.o.b.) of internationally traded oil only, weighted by estimated export volume. Source: See page 26.

Table 13. Spot Market Product Prices¹ (Dollars per Barrel)

| Motor Gasoline Gas Oil/Heating Oil ² Residual Fuel Oil ³ | |
|--|---|
| Rotterdam N.Y. ⁴ Leaded Unleaded Premium ⁵ Regular Rotterdam N.Y. ⁴ Rotterdam N.Y. ⁸ Day (98 Octane) (87 Octane) (0.3% Sulfur) (0.2% Sulfur) (1% Sulfur) (1% Sulfur) |) |
| 11 21.16 23.84 16.82 18.48 12.59 14.00 | |
| 18 21.69 22.16 16.55 18.10 12.91 14.00 | |
| 25 21 20 20 30 17 43 19.11 12 89 14 60 | |
| 2 21 63 21.42 19.50 20 79 13.89 15 10 | |
| 9 20 57 19 15 19.34 20 27 13 29 14 95 16 20.40 19.11 20.24 21.46 13.74 15.00 | |
| | |
| 44444 Herrie | |
| 30 20.52 20.06 20.71 22.20 14.49 16.50 8 20.16 20.31 21.25 23.04 14.94 16.65 | |
| 13 19.5) 21.1 21.25 23.04 14.79 16.35 | |
| 20 20,40 22,46 21.95 25.21 15.32 16.15 | |
| 27 20.40 21.21 20.17 21.78 15.17 15.50 | |
| 3 20.81 21.00 19.64 22.47 14.56 15.00 | |
| 10 21.51 20.10 18.97 21.25 14.56 14.50 | |
| -17 2° 10 19 95 18 97 21 36 14 49 14 00 | |
| -24 21 4F 20 48 19 17 21,74 14 04 14 75 | |
| 3 21,01 21.53 19.60 23,55 14,34 15.60 | |
| 10 23,15 21.36 19.77 23,46 14.34 16.10 | |
| 17 23.68 23.21 20.24 24.57 14.64 17.00 | |
| 24 25.73 23.73 21.11 24.72 15.02 18.00 | |
| 31 26.26 26.46 22.12 23.46 15,99 18.25 7 30.69 26.78 21.18 22.68 16.52 18.50 | |
| | |
| | |
| 21 33,24 30,77 22.18 22.47 17.42 18.75 28 34,41 31,19 21.18 22.37 18,02 19.00 | |
| 5 32.18 30.45 19.71 21.57 17.64 18.65 | |
| 12 31,13 28,88 19.71 21.67 16,44 18,60 | |
| 19 29.72 27.34 19.91 21.11 16.37 17.75 | |
| 26 28.72 28.14 19.91 21.42 15.47 17.50 | |
| 2 28.14 27.87 19.77 21.11 15.62 17.50 | |
| 9 26.65 27.72 19.84 20.69 15.24 17.25 | |
| 16 24,38 25,66 18.36 19.47 14.49 16.75 | |
| 23 23,68 26,38 19.03 20,31 14,49 15,76 | |
| 30 25.21 26.25 19.57 20.62 14.64 16.50 | |
| 7 24.62 24.72 20.04 20.83 14.64 16.65 | |
| 14 24.21 24.89 19.50 20.62 15.54 16.95 | |
| 21 23.56 22.68 20.58 21.55 15.54 16.65 28 22.10 21.84 20.17 20.62 15.54 16.10 | |
| The state of the s | |
| | |
| The state of the s | |
| | |
| 25 23.04 22.83 21.05 21.36 13.59 15.15 1 23.16 23.14 21.31 22.37 13.51 14.90 | |
| 8 23.15 24.09 22.32 23.04 13.74 15.00 | |
| 16 29,39 24,40 22,52 22,79 14,19 15,76 | |
| 22 24.33 26.67 23.32 23.88 14.71 16.25 | |
| 29 25.62 25.78 22.99 24.51 14.71 * 18.50 | |
| 6 24,68 23.88 23.46 24,15 14.71 17.50 | |
| 13 24.85 23.94 24.80 25.41 14.71 17.65 | |
| 20 23.92 23.02 25.47 24.99 16.74 17.75 | |
| 27 22,74 22,79 24.06 23.84 16.82 77.50 | |
| 7 3 21.92 21.67 25.13 24.95 16.82 17.50 | |

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Refers to No. 6 Oil.

See Appendix for explanation of spot market product prices and coverage.

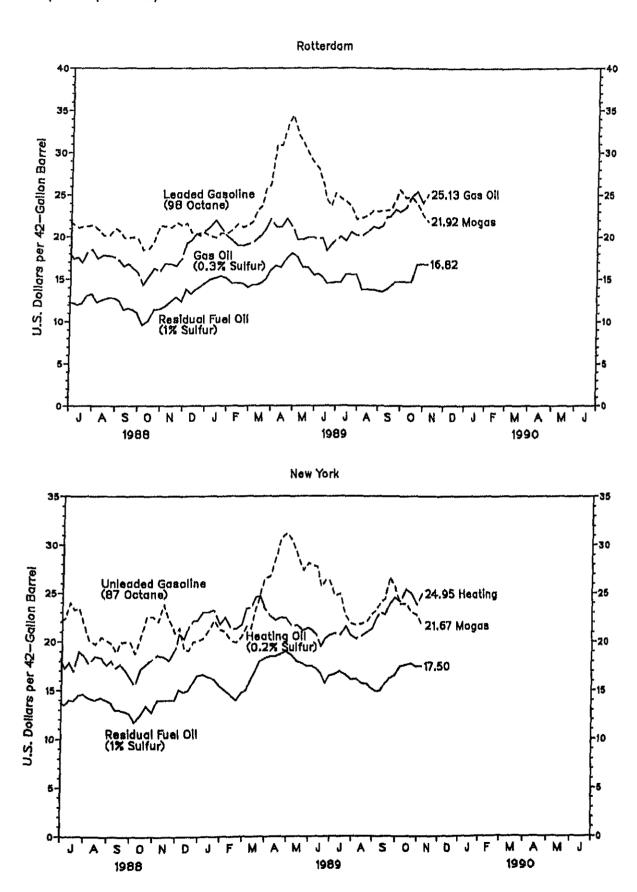
Refers to No. 2 Healing Oil.

New York Harbor Reseller Barge Prices.

Refers to Research Octane Number (RON) only. European premium motor gasoline of 98 octane is equivalent to a U.S. antiknock index of 93 octane.

East Coast Cargoes. Source: See page 26.

Figure 10. Spot Market Product Prices (Dollars per Barrel)



Source: See page 26.

Table 14.

Weekly Estimates
(Thousand Barreis per Day Except Where Noted)

| Parties and the second | 10/06/89 | 10/13/89 | 10/20/89 | 10/27/89 | 11/03/89 |
|---|---------------------|---|----------------------|---|---------------------|
| Crude Oil Production | | | | | |
| Domestic Production | E7,644.0 | ⁶ 7,644.0 | [™] 7,644.0 | ⁸ 7,644.0 | E7,601.0 |
| Refinery Inputs and Utilization | .,, | , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | ., | , | 2, , , , , , |
| Crude Oil Input | 13,488.0 | 13,450 0 | 13 222 C | 13,319.0 | :3,277.0 |
| East Coast (PADD I) | 1,347.0 | 1,291.0 | 1,425.0 | 1,427 0 | 1,415.0 |
| Micwest (PADD II) | 2,853.0 | 2 729 0 | 2,653.0 | 2,544.0 | 2,489.0 |
| Guil Coast (PADD 11) | 6,134.0 | 6 366 C | 6,072 0 | 6 238.0 | 5,306.0 |
| Rocky Mountain (PADS IV) | 487.0 | 470 C | 411.0 | 441.0 | 455,0 |
| West Coast (PADD V) Gross inputs | 2,567.3 | 2 594 0 | 2 661.0 | 2,669 0 | 2 612.0 |
| Eart Coast (PADD I) | 13 694.0 1 354.0 | 13,6 <i>7</i> 9 0 1,299.0 | 15,419.0 | 13,546 C 1,465 O | 13 471 0 422 0 - |
| Micwest (PADD II) | 2 906.0 | 285.0 2 785 C | 1,440.0 2,7:4.0 | 2,605 0 | 2 555,0 |
| Gulf Const (PACD I I) | 5,237.0 | 6 471 0 | 6 165 0 | 6.345 C | 6.395.0 |
| Rocky Mountain (PACC IV, | 489.0 | 472 0 | 412 0 | 443.0 | 456,0 |
| Wost Coast (PADD V, | 2,708 0 | 2,652 0 | 2,689,0 | 2,690 0 | 2,642.0 |
| Operable Capacity (Milion Barrels per Day) | 15 7 | 1 <u>5</u> .7 | 15.7 | 15.7 | 15.7 |
| Percent Utilization | 87.3 | 87.2 | 85.6 | 86,3 | 85.9 |
| Production by Product | | | | | |
| Finished Motor Gasoline | 7,019,0 | 6,995.0 | 6,697,0 | 6,763.0 | 6,772.0 |
| Leaded Gasoline | 610.0 | 506,0 | 588,0 | 482.0 | 567,0 |
| East Coast (PADD I) | 6.0 | 10.0 | 9,0 | 6.0 | . 19.0 |
| Midwest (PADD III) Gulf Coast (PADD III) | 132.0 | 124.0 | 130.0 | 97.0 | 132.0 |
| Rocky Mountain (PADD IV) | 188,0 85,0 | 79,0 76.0 | 116,0 93,0 | 126,0 °, 61,0 | 173,0 72.0 |
| West Coast (PADD V) | 199,0 | 217.0 | 240.0 | 192,0 | 172.0 |
| Unleaded Gasoline | 6,403.0 | 6,489.0 | 6,109.0 | 6,281,0 | 6,205.0 |
| East Coast (PADD I) | 728.0 | 593.0 | 636,0 | 661,0 | 789,0 |
| Midwest (PADD (I) | 1,572.0 | 1,566.0 | 1,358,0 | 1,445,0 | 1,340.0 |
| Guil Coast (PADD III) | 2,931,0 | 8,152,0 | 3,039,0 | 2,982,0 | 2,902.0 |
| Rocky Mountain (PADD IV) Wost Coast (PADD V; | 176.0 | 178.0 | 132.0 | 185.0 | 133.0 |
| Jet Fuel | 996 0 1,602.0 | -,000.0 1,494.0 | 944,0 1,544 0 | 1,008.0 | 1,041.0 1,566.0 |
| Nachtha-Type | 212.0 | 197.0 | 1,544 O 189.Q | 1,471 0 192 0 | 206.0 |
| Kciosane-Typo | 1,290 0 | 1 297.0 | 1,355.0 | 1,279 0 | 1 360.0 |
| East Const (PADD I) | 850 | 68.0 | 94 Ç | 840 | 84,0 |
| Micwest (PADD) | 148.0 | -66.0 | 158 C | 1180 | 130,0 |
| Gulf Coast (PADD III) | 704,0 | | 697,0 | 677,0 | 741.0 |
| Rocky Mountain (PADD IV) | 23.0 330 3 | 29 0 1 | 25 0 | 29.0 | 37.0 |
| Ten in Fac DT | 2 91 9 0 | 2 945 J | 2.1.5 | ** | 564.0 |
| Enst Coast (PADD I) | 434 C | 360 0 | 347 C | 379 0 | 1,000 C 439.0 |
| Midwes: (PADD .I) | 670 0 | 658 0 | 615.0 | 651 0 | 662.0 |
| Gulf Coast (PADD III) | 1,257.0 | 1,264,0 | 1,207,0 | 1,347.0 | |
| Rocky Mountain (PADD IV) | 124.0 | 133.0 | 124,0 | 115.0 | 140.0 |
| Wost Coast (PADD V) | 474.0 | 463 0 | 421 0 | 428 0 | 403,0 |
| Residual Fuol Cil East Coast (PADD I) | 860.0 95.0 | 1 000.0 | . 953 2 | 1,033 0 | 1,071.0 |
| Midwest (PADD II) | 78.0 | 153,0 54,0 | 114.0 82.0 | 143 0 57.0 | 133 0 |
| Gulf Coast (PADD III) | 308,0 | 416,0 | | 47,4,0 | 86,0 407,0 |
| Rocky Mountain (PADD IV) | 7.0 | 7.0 | 4.0 | 5.0 | 8,0 |
| West Coast (PADD V) | 872,0 | 370.0 | | 354.0 | 437,0 |
| Btocks (Million Barrels) | | | , ,, | (/ 1 * 1 * 4 (* 1) () () () () | |
| Crude O1 | 538 8 | 344 3 | 337 5 | 342,7 | 240 4 |
| East Coast (PADD I) | 153 | 153 | 14 0 | 14.0 | 340.6 14 6 |
| ₩.dwost (PADD II) | 70.9 | 707 | 70,6 | 72.9 | 75.4 |
| Gulf Coast (PADD II) | 162.2 | 165.8 | 160 6 | 161 7 | 163.4 |
| Rocky Mountain (PADD IV) | 11.8 | 116 | 11.9 | 12.0 | 11.9 |
| West Coast (PADD V) | 78.9 | 810 | 80 5 | 82 1 | 75.4 |
| (ercsone Type Jet = bel East Coast (PADD ı) | . 41.8 11.7 | 429 | 44 0 | 43.5 | 44.3 |
| Midwest (ADDI) | 6.7 6.7 | 12.3 # # | 12.3 5.5 | 123 #4 | 123 |
| G (Clast PACC) | 15.6 | -55 | 5 ÷ 3 | # 5 *5 # | 8.4 16 |
| Flacky Michigan (FADD, M) | 2.6 | ËĖ | 6.7 | 5 t | 16.7 6.7 |
| Mest Court FADD by | ää | ធិ ទី | 1.J | ě.: | C.2 |
| See footnotes at end of table. | | | | | |
| 200 IOUTIOTES AT 8110 OF 191016" | | | | | |

Table 14. Weekly Estimates (continued)

(Thousand Barrels per Day Except Where Noted)

| | | 10/06/89 | 10/13/89 | 10/20/89 | 10/27/89 | 11/03/89 |
|--------------------------------|---------------------------------------|---------------------------------------|-----------------|----------------------|----------|----------|
| Imports | | | | | | |
| Total Crude Oli Incl SPR | | 5,946.0 | 6,509.0 | 5,607.0 | 6,780,0 | 6,492.0 |
| Crude Oil | • | 5,946.0 | 6,466.0 | 5,557.0 | 6,780,0 | 6,421.0 |
| East Coast (PADD t) | | 1,423.0 | 1,496,0 | 1,225,0 | 1,418.0 | 1,672.0 |
| Midwest (PADD II) | | 489.0 | 491.0 | 600.0 | 420.0 | 590.0 |
| Gulf Coast (PADD III) | • • | 3,515,0 | 3,931.0 | 3,266,0 | 4,552.0 | 3,706.0 |
| Rocky Mountain (PADD IV) | • | 63.0 | 58,0 | 61.0 | 53.0 | 52.0 |
| West Coast (PADD V) | | 456.0 | 490.0 | 405.0 | 837.0 | 401.0 |
| SPR | | 0.0 | 43.0 | 50.0 | 0.0 | 72.0 |
| Finished Motor Gasoline | | 374.0 | 221.0 | 492.0 | 233.0 | 402,0 |
| Finished Leaded | | 0.0 | 0.0 | 94.0 | 0.0 | 0.0 |
| Finished Unleaded | - | 374.0 | 221.0 | 398.0 | 533'0 | 402.0 |
| Blending Components | • | 0,0 | 81.0 | 37.0 | 142.0 | 138.0 |
| Jet Fuel | | 82.0 | 150.Q | 115.0 | 37.0 | 91.0 |
| Naphtha-Type | * . | 0.0 | 41.0 | 45.0 | 0.0 | Ŏ,Ŏ |
| Kerosene-Type | | 82.0 | 109.0 | 70.0 | 37.0 | 91.0 |
| Distillate Fuel Oil | | 326.0 | 386.0 | 262.0 | 228.0 | 213.0 |
| Residual Fuel Oil | | 255.0 | 894.0 | 592.0 | 682,0 | 377.0 |
| Other | • | 929,0 | 532.0 | 645.0 | 547.0 | 687.0 |
| Total Refined Products Imports | ţ • | 1,966.0 | 1,764.0 | 2,148.0 | 1,769.0 | 1,908.0 |
| • | | Hadma | · · · · Fyrsmor | " withmon | MAGE. | i daono |
| Exports | | | . . | | | |
| Total | | E ₇ 80.0 | E780.0 | E780.0 | | E967.0 |
| Crude Oil | • | _ ^{fe} 69,0 | 69.0 ° | _ ¹ €69.0 | E162.0 | E162.0 |
| Products | | E711.0 | E711.0 | 711.0 | E805.0 | EB05.0 |
| Deaders Ormultud | • • • • | | , | - 11 12 11 | • • | |
| Products Supplied | | · · · · · · · · · · · · · · · · · · · | W 456 6 ' | · mwmaa · | | : |
| Finished Motor Gasoline | · · · · · · · · · · · · · · · · · · · | 7,377.0 | 7,123.0 | 7,350,0 | 6,927,0 | 7,387.0 |
| Leaded | | 663,0 | 525.0 | 673.0 | 609.0 | 685.0 |
| Unleaded | | 6,714,0 | 6,598,0 | 6,677.0 | 6,818,0 | 6,702.0 |
| Jet Fuel | | 1,530.0 | 1,480.0 | 1,567.0 | 1,575.0 | 1,530.0 |
| Naphtha-Type | | 255,0 | 248,0 | 312.0 | 193.0 | 213.0 |
| Kerosene-Type | | 1,275.0 | 1,232.0 | 1,255.0 | 1,382.0 | 1,317.0 |
| Distillate Fuel Oil | | 9,373.0 | 3,344.0 | 2,925.0 | 3,118,0 | 3,040.0 |
| Residual Fuel Oil | | 9,800 | 1,192.0 | 1,029.0 | 1,253,0 | 1,012.0 |
| Other Olis | | 8,836.0 | 3,909,0 | 6,698.0 | 3,417.0 | 3,887.0 |
| Total Products Supplied | | 17,024.0 | 17,048,0 | 16,569.0 | 16,290.0 | 16,856.0 |

E-Estimate based on data published for the most recent month in the *Petroleum Supply Monthly* except for crude oil production. See Appendix for explanation of estimates of crude oil production.

Note: Due to independent rounding, individual product detail may not add to total.

Source: See page 26.

Table 15. Weather Summary (Population Weighted Cooling Degree-Days¹)

Weather data reported in the Weekly Petroleum Status Report are taken directly from a computerized system implemented by the National Oceanic and Atmospheric Administration, Department of Commerce. The National Oceanic and Atmospheric Administration (NOAA)/NWS, as a U.S. Government Agency, does not endorse any consumer information services.

The weather for the Nation, as measured by population-weighted cooling degree-days from January 1, 1989, through November 4, 1989, has been 8 percent cooler than last year and the same as normal.

U.S. Total Cooling Degree Days (Population Weighted) and by City

| The state of the s | | <u></u> | | Percent | Change |
|--|----------------------|----------------------|------------|---|--------------------------------------|
| | 1989 This Year | 1988 Last Year | Normal | This Year vs. Last Year | This Year vs. Normal |
| | | | | | |
| January 1 - December 31 | | 1,270 | 1,158 | *** | |
| January 1 - November 4 | 1,145 | 1,248 | 1,149 | -8 | 0 |
| Cities | | | | | |
| Albuquerque | 1,399 | 1,034 | 1,252 | 35 | 12 |
| Amarillo | 1,275 | 1,178 | 1,428 | 8 | <u>-</u> 11 |
| Asheville | 819 | 848 | 842 | -3 | ·-3 |
| Atlanta | 1,941 | 1,901 | 1,665 | 2 | 17 |
| Billings | 608 | 1,032 | 553 | H41 | 10 |
| Boise | 796 | 899 | 742 | -11 | 7 |
| Boston | 710 | 902 | 699 | ⊬21 | . 5 |
| Buffalo | 512 | 729 | 479 | -30 | 7 |
| Oheyenne | 347 | 450 | 308 | | 13 |
| Chicago | 716 | 1,164 | 739 | -38 | -3 |
| Olnoinnati | 1,088 | 1,249 | 1,038 | 43 | . 5 |
| Cleveland | 741 | 932 | 614 | -20 | 21 |
| Columbia, SC | 2,159 | 2,009 | 2,040 | 7 | ; ₿ |
| Denver | 797 | 899 | 680 | -11 | 17 |
| Des Moines | 983 . | 1,416 | 1,019 | | : +4 |
| Detroit | 631 | 1,012 | 613 | -38 | 3 |
| Fargo . | 686 | 1,003 | 478 | -32 | 44 |
| Hartford | 702 | 851 | 666 | -18 | 5 |
| Houston | 2,892 | 2,921 | 2,700 | ا م. | 7 |
| Jacksonville | 2,865 | 2,403 | 2,452 | 19 | 17 |
| Kansas City | 1,259 | 1,727 | 1,337 | -27 | · +6 |
| Las Vegas | 3,506 | 3,326 | 3,028 | 5 | 16 |
| Las Angoles | 575 | 520 | 699 | 3 | -23 |
| Memphis | 2,047 | 2,224 | 2,004 | -8 | -1 |
| Miami | 4,407 | 3,941 | 3,746 | 12 | , 18 |
| Milwaukee | 480 | 998 | 479 | -52 | 0 |
| Minneapolis | 779 | 1,152 | 667 | -32 | 17 |
| Montgomery | 2,235 | 2,091 | 2,262 | . 7 | -1 |
| New York | 1,189 | 1,288 | 1,052 | . 4 | 13 |
| Oklahoma City | 1,712 | 2,004 | 1,913 | -15 | -11 |
| Omaha | 1,173 | 1,491 | 1,169 | H 18 | . Q |
| Philadelphia | 1,247 | 1,333 | 1,076 | , 6 | 16 |
| Phoenix | 5,172 | 4,935 | 3,726 | | 39 |
| Pittsburgh | 819 | 957 | 643 | -14 | 27 |
| Portland, ME | 372 | 645 | 254 | | .: 48 |
| Providence | 717 | 820 | 571 | -13 | 26 |
| Raleigh | 1,622 | 1,465 | 1,400 | 监狱:出籍 。 | 16 |
| Richmond | 1,456 | 1,465 | 1,332 | -1 | 9 |
| St. Louis | 1,587- | 1,877 | 1,471 | ing a la <mark>M</mark> MA to ing | -24 -24 |
| Salem, OR | 179 | 261 | 236 | -31 | -24 |
| Salt Lake City | . 1,175 | 1,391 | 983 | # 16 | 20 |
| San Francisco | 123 | 178 | 98 | | ************************************ |
| Seattle | : 174 | T | · 15 100 & | (1) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | <i></i> 8 |
| Shreveport | 2,255 | 2,371 | 2,441 | | - 8 |
| Washington, DO | 1,536 | 1,594 | 1,432 | marai d o e e | Carlotte F |

See Glossary.

^{**** =} Normal 100 or less, or ratio incalculable.

SOURCES

Table 1

- Monthly Data: 1988, EIA, Petroleum Supply Annual; 1989, EIA, Petroleum Supply Monthly.
- Four-Week Averages: Estimates based on EIA Weekly data.

Table 2

- Monthly Data: 1987-1988, EIA, Petroleum Supply Annual; 1989, EIA, Petroleum Supply Monthly, except for operable capacity for January 1989 which is from the Petroleum Supply Annual, 1988.
- Four-Week Averages: Estimates based on weekly data collected on Form EIA-800.

Figure 1

- Monthly Data: 1988, EIA, Petroleum Supply Annual; 1989, EIA, Petroleum Supply Monthly, except for operable capacity for January 1989 which is from the Petroleum Supply Annual, 1988.
- Four-Week Averages: Estimates based on weekly data collected on Form EIA-800.

Table 3

- Monthly Data: 1987-1988, EIA, Petroleum Supply Annual; 1989, EIA, Petroleum Supply Monthly.
- Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, -802, and -803.

Figure 2

- Data for Ranges and Seasonal Patterns: 1982-1988, EIA, Petroleum Supply Annual; 1989, EIA, Petroleum Supply Monthly.
- Monthly Data: 1988, EIA, Petroleum Supply Annual;
 1989, Petroleum Supply Monthly.
- Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, -802 and -803.

Table 4

- Monthly Data: 1987-1988, EIA, Petroleum Supply Annual;
 1989, EIA, Petroleum Supply Monthly.
- Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

Figure 3

- Data for Ranges and Seasonal Patterns: 1982-1988, EIA, Petroleum Supply Annual; 1989, EIA, Petroleum Supply Monthly.
- Monthly Data: 1988, EIA, Petroleum Supply Annual; 1989, Petroleum Supply Monthly.
- Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

Table 5

- Monthly Data: 1987-1988, EIA, Petroleum Supply Annual; 1989, EIA, Petroleum Supply Monthly.
- Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

Figure 4

- Data for Ranges and Seasonal Patterns: 1982-1988, EIA, Petroleum Supply Annual; 1989, EIA, Petroleum Supply Monthly.
- Monthly Data: 1988, EIA, Petroleum Supply Annual; 1989, Petroleum Supply Monthly.
- Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

Table 6

- Monthly Data: 1987-1988, EIA, Petroleum Supply Annual;
 1989, EIA, Petroleum Supply Monthly.
- Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

Figure 5

- Data for Ranges and Seasonal Patterns: 1982-1988, EIA, Petroleum Supply Annual; 1989, BIA, Petroleum Supply Monthly.
- Monthly Data: 1988, EIA, Petroleum Supply Annual; 1989, Petroleum Supply Monthly.
- Week-Ending Stocks: Estimates based on weekly data collected on Forms BIA-800, -801, and -802.

Figure 6 and Table 7

- Monthly Data: 1988, EIA, Petroleum Supply Annual;
 1989, EIA, Petroleum Supply Monthly.
- Four-Week Averages: Estimates based on weekly data collected on Form EIA-804.

Figure 7 and Table 8

- Monthly Data: 1988, EIA, Petroleum Supply Annual;
 1989, EIA, Petroleum Supply Monthly.
- Four-Week Averages: Estimates based on weekly data collected on Form EIA-804.

Figure 8 and Table 9

- Monthly Data: 1987-1988, BIA, Petroleum Supply Annual; 1989, BIA, Petroleum Supply Monthly.
- Four-Week Averages: Estimates based on weekly data collected on Forms EIA-800, -801, -802, -803, and -804.
- Projections: EIA, Office of Energy Markets and End Use (July 1989).

Table 10

 Refiner Acquisition Cost of Crude Oil: Form EIA-14, Refiners Monthly Cost Report.

Table 11

- Motor Gasoline Bureau of Labor Statistics. See glossary description for Retail Motor Gasoline Prices.
- Residential Heating Oil Forms EIA-782A, Monthly Petroleum Product Sales Report, and EIA-782B, Monthly No. 2 Distillate Sales Report.

Table 12 and Figure 9

- BIA, International & Contingency Information Division.
- Platt's Oilgram Price Report.

- · Petroleum Intelligence Weekly.
- · Oil Buyers' Guide, International.
- · Weekly Petroleum Argus.

Table 13 and Figure 10

- · EIA, International & Contingency Information Division.
- Oil Buyers' Guide.

Table 14

 Estimates based on weekly data collected on Forms EIA-800, -801, - 802, -803, and -804.

Appendix

Explanatory Notes

EIA Weekly Data: Survey Design and Estimation Methods

The Weekly Petroleum Supply Reporting System (WPSRS) comprises five surveys: the "Weekly Refinery Report" (EIA-800); the "Weekly Bulk Terminal Report" (EIA-801); the "Weekly Product Pipeline Report" (EIA-802); the "Weekly Crude Oil Stocks Report" (EIA-803); and the "Weekly Imports Report" (EIA-804). The EIA weekly reporting system, as part of the Petroleum Supply Reporting System, was designed to collect data similar to those collected monthly. In the WPSRS, selected petroleum companies report weekly data to EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On the Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports each shipment entering the United States. Current weekly data and the most recent monthly data are used to estimate the published weekly totals.

Sample Frame

The sample of companies that report weekly in the WPSRS was selected from the universe of companies that report monthly. All sampled companies report data only for facilities in the 50 States and the District of Columbia. The BIA-800 sample frame includes all petroleum refineries in the United States and its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and bulk terminals that blend motor gasoline. The EIA-801 sample frame includes all bulk terminal facilities in the United States and its territories that have total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The EIA-802 sample frame includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate, and intracompany pipeline movements. Pipeline companies that transport only natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies which transport products covered in the weekly survey are included. The EIA-803 sample frame consists of all companies which carry or store 1,000 barrels or more of crude oil. Included are gathering and trunk pipeline companies (including interstate, intrastate and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water. The EIA-804 sample frame includes all importers of record of crude oil and petroleum products into the United States.

Sampling *

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total

sample covers about 90 percent of the total for each item and each geographic region for which weekly data are published.

| | Weekly Form | Monthly Frame Size | Weekly Sample Size |
|----------------------------|-------------|-----------------------|-----------------------|
| Refiners (Refineries) | EIA-800 | 168(255) | 59(151) |
| Buik Terminals | EIA-801 | 324 | 74 |
| Product Pipelines | EIA-802 | 85 | 45 |
| Crude Oil Stock Holders | EIA-803 | 172 | 78 |
| Importers | EIA-804 | 1194 | 103 |

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. All canvassed firms must file by 5:00 p.m. on the Monday following the close of the report week, 7 a.m. Friday. During the processing week, company corrections of the prior week's data are also entered.

Estimation and Imputation

After the company reports have been checked and entered into the weekly data base, explicit imputation is done for companies which have not yet responded. The imputed values are exponentially smoothed means of recent weekly reported values for this specific company. The imputed values are treated like reported values in the estimation procedure, which calculates ratio estimates of the weekly totals. First, the current week's data for a given product reported by companies in a geographic region are summed. (Call this weekly sum, W_s.) Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum, M_s.) Finally, let M_t be the sum of most recent month's data for the product as reported by all companies. Then, the current week's ratio estimate for that product for all companies, W_t, is given by:

$$W_t = \frac{M_t}{M_s} \cdot W_s$$

This procedure is used directly to estimate total weekly inputs to refineries and production. To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of total weekly imports is the product of the smoothed ratio and the sum of the weekly reported values and imputed values.

Response Rates

The response rate as of the day after the filing deadline is about 80 percent for the EIA-800, 75 percent for the EIA-801, 95 percent for the EIA-802, 80 percent for the EIA-803, and greater than 95 percent for the EIA-804. However, more forms are received the next day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimates is usually between 1 percent and 2 percent.

Estimation of Domestic Crude Oil Production

Data on crude oil production for States are reported to the Department of Energy by State conservation agencies. Data on the volume of crude oil produced on Federally-owned offshore leases are reported by the Minerals Management Service, U.S. Department of the Interior. There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly crude oil production information becomes available. In order to present more timely crude oil production values, the Energy Information Administration prepares monthly crude oil production forecasts which are based on historical production patterns and are summed to obtain the weekly and 4-week crude oil production values shown in this publication. Cumulative crude oil production values shown in the U.S. Petroleum Balance Sheet include revised estimates published in the Petroleum Supply Monthly.

Data Assessment

The principal objective of the Petroleum Supply Reporting System is to provide an accurate picture of petroleum industry activities and of the availability of petroleum products nationwide from primary distribution channels. The weekly data, which are based on sample estimates stemming largely from preliminary company data, serve as leading indicators of the monthly data. The weekly data are not expected to have the same level of accuracy as the preliminary monthly data when compared with final monthly data. However, the weekly data are expected to exhibit like trends and product flows characteristic of the preliminary and final monthly data.

To assess the accuracy of weekly statistics, monthly estimates derived from weekly estimates are compared with the final monthly aggregates published in the Petroleum Supply Annual. Although final monthly data are still subject to error, they have been thoroughly reviewed and edited, they reflect all revisions made during the year and they are considered to be the most accurate data available. The mean absolute percent error provides a measure of the average revisions relative to the aggregates being measured for a variable. The mean absolute percent error for 1988 weekly data was less than 3 percent for 19 of the 30 major petroleum variables analyzed. Most of the variables with mean absolute percent errors of 3 percent or more were for refined products imports series. The mean absolute percent error for total weekly refined products imports was 15 percent for 1988. It should be noted that products imports data are highly variable and cannot be estimated from a sample with the same precision as other petroleum variables. estimates for refined products imports are almost always low

because small companies, which are not in the weekly sample, generally import large volumes of finished products only a few times during the year.

An analytical article, "Timeliness and Accuracy of Petroleum Supply Data," which assesses the differences between interim and final data on the 30 major petroleum variables, is published in the *Petroleum Supply Monthly* once each year.

Interpretation and Derivation of Average Inventory Levels

The national inventory (stocks) graphs for total petroleum products, crude oil, motor gasoline, distillate fuel oil, and residual fuel oil in this publication include features to assist in comparing current inventory levels with past inventory levels and with judgments of critical levels. Methods used in developing the average inventory levels and minimum operating levels are described below.

Average Inventory Levels

The charts displaying inventory levels of crude oil and petroleum products (p.7), crude oil (p.7), motor gasoline (p.9), distillate fuel oil (p.11), and residual fuel oil (p.13) provide the reader with actual inventory data compared to an "average range" from the most recent 3-year period running from January through December or from July through June. The ranges are updated every 6 months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a longer time period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels). The intent of deseasonalization is to remove only annual variation from the data. Thus, deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors were derived using monthly data from 1982–1988.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36 months is calculated adjusting for extreme data points. The upper curve of the "average range" is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the "average range" is twice the standard deviation. The values of the upper and lower curves are presented in Table A1.

Table A1. Values of Average Ranges in Inventory Graphs (Million Barrels)

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Lower Range | | | | | | | | | | | | |
| Total Petroleum | 1,027.2 | 1,039.7 | 996.6 | 1,002.5 | 1,022.8 | 1,027.4 | 1,036.4 | 1,056.2 | 1,063.0 | 1,076,6 | 1,086.0 | 1,041.7 |
| Crude Oil | 330.9 | 329.1 | 329.7 | 333.9 | 333.6 | 333.3 | 326.1 | 325.9 | 323.9 | 331.9 | 332.5 | 327.7 |
| Motor Gasoline | 237.1 | 235.5 | 224.7 | 222.0 | 222,3 | 220.7 | 222.5 | 219.2 | 224.7 | 219.2 | 223.7 | 223,7 |
| Distillate Fuel Oil | 125.9 | 106.4 | 87.8 | 82,4 | 87.3 | 94.9 | 107.6 | 117.4 | 124.8 | 127.9 | 138,6 | 136.7 |
| Residual Fuel Oil | 43.6 | 39.9 | 38.9 | 36.9 | 39.2 | 39.2 | 40,5 | 38.0 | 41.6 | 44.7 | 46.1 | 46.5 |
| Upper Range | | | | | | | | | | | | |
| Total Petroleum | 1,060.8 | 1,073.3 | 1,030.2 | 1,036.1 | 1,056.4 | 1,060.9 | 1,069.9 | 1,089.8 | 1,096.6 | 1,110.2 | 1,119.6 | 1,075.3 |
| Crude Oil | 349.9 | 348.1 | 348.7 | 353.0 | 352.6 | 352.3 | 345.1 | 344.9 | 342.9 | 351.0 | 351.5 | 346.7 |
| Motor Gasoline | 247.1 | 245.6 | 234.7 | 232,1 | 232.3 | 230.7 | 232.6 | 229.2 | 234.8 | 229,2 | 233.7 | 233.7 |
| Distillate Fuel Oil | 143.0 | 123,6 | 104.9 | 99.6 | 104.5 | 112.0 | 124.8 | 134.6 | 142.0 | 145.1 | 155.7 | 153.8 |
| Residual Fuel Oil | 48.1 | 44.4 | 43.4 | 41.4 | 43.7 | 43.7 | 45.0 | 42.5 | 46.0 | 49.2 | 50.6 | 51.0 |

Minimum Operating Inventories

The lines labeled "Minimum Operating Inventory" (MOI) on the stocks graphs for crude oil, motor gasoline, distillate fuel oil, and residual fuel oil represent estimates of those inventory levels made by the National Petroleum Council (NPC) and published in April 1989 in a report of the NPC's Committee on Petroleum Storage & Transportation. The NPC defines the MOI as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. The NPC report presents the findings of a study which was directed by the NPC Committee. MOI estimates presented in the report were developed by consensus through a decision-making process that relied on the judgement of Committee members based on their operating experience, on historical inventory trends, and on the results of an NPC survey of companies that provide primary inventory data to the Energy Information Administration. The estimated MOI values are: Crude oil -- 300 million barrels; motor gasoline -- 205 million barrels; distillate fuel oil -- 85 million barrels; and residual fuel oil -- 30 million barrels.

The NPC did not develop a minimum operating inventory level for total petroleum stocks. The line labeled "observed minimum" on the "Stocks of Crude Oil and Petroleum Products, U.S. Total" graph is the lowest inventory level observed during the most recent 36-month period as published in the *Petroleum Supply Monthly*.

Projections from the Short-Term Energy Outlook, July 1989

One of the most uncertain factors affecting the domestic short-term energy outlook is the world oil prices, defined here as the nominal price of imported crude oil delivered to U.S. refiners. Because of this uncertainty, three different world oil price scenarios are employed. These scenarios are used to develop a base case projection and two alternative projections for domestic supply and demand.

Base Case

In the base oil price scenario, the world oil price decreases from \$18.80 per barrel in the second quarter of 1989 to \$17 in the second half of 1989 and throughout 1990. This scenario is based on the assumption that OPEC will be able to agree this fall on a new set of crude oil production quotas that will generally restrain total OPEC oil production to a narrow range around 23.0 million barrels per day.

Alternative Cases

Low Demand

In the low price scenario, the world oil price decreases to \$15 per barrel in the third quarter of 1989 to \$17 in the second half of 1989 and remains at that level throughout the forecast period. In this scenario, it is assumed that a continuing battle for market share between the Persian Gulf members of OPEC will lead to increased OPEC oil production and lower oil prices. Revenue concerns, however, hold overproduction below levels that would trigger a price collapse.

High Demand

In the high oil price scenario, the world oil price increases to \$20 per barrel in the third quarter of 1989 and remains at that level throughout the forecast period. In this scenario, it is assumed that economic growth and oil consumption growth will remain strong throughout 1989 and 1990, and that OPEC will reach a solid production accord that will reduce the incentive for Persian Gulf member nations to engage in excessive overproduction.

For more detailed information on the forecast, please refer to the published report, July 1989 Short-Term Energy Outlook. Copies of the report are available from:

National Energy Information Center Room 1F-048, Forrestal Building 1000 Independence Avenue, S.W. Washington, DC 20585 Telephone (202) 586-8800

Calculation of World Oil Price

The weighted average international price of oil, shown in the "Highlights" on page 1 and on page 18, is an average calculated using specific crude oil prices weighted by the estimated crude oil export volume for each oil-producing country. To develop the table shown on page 18, a list of major oil producing/exporting countries was chosen. For each country, the contract selling price of one or more representative crude oils was determined by investigating a number of industry publications (i.e., "Oil Buyers' Guide", "Platt's Oilgram Price Report", "Petroleum Intelligence Weekly", and "Weekly Petroleum Argus") and by contacting oil market analysts.

Then, the appropriate crude oil volumes to be used as weighting factors for each country were determined. These volumes are estimates based on a number of sources which provide data on production, consumption, and exports for these countries. Export volumes for a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors. After the export volumes had been determined, simple mathematical weighted averages were calculated to arrive at the "Total OPEC," "Total Non-OPEC," and "Total World" prices.

The average United States (FOB) import price is derived by the same basic procedure as the world oil price, that is, taking the representative contract crude oil price of a specific crude oil from a particular country and weighting this price by a certain volume of crude oil. In this case, the weighting factors are the volumes of crude oil imported into the U.S. from pertinent countries. Import volumes from a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors.

Both the import and export volumes are preliminary. Due to their origin, these estimates cannot be fully verified. These volumes are updated monthly, or more frequently when changes in oil market conditions make updating appropriate.

Explanation and Coverage of Spot Market Product Prices

Definition of spot market product prices for the Rotterdam market: Represent the mid point of the bid/asked price range for CIF cargoes scheduled for prompt arrival at Rotterdam (within 48 hours).

Definition of spot market product prices for the New York market: Represent last sale price reported or offered. Prices are ex-duty and do not include Federal or State taxes.

General definition of spot prices: A transaction concluded "on the spot," that is, on a one-time prompt delivery basis, usually referring to a transaction involving only one cargo of product. This contrasts with a term contract sale which obligates the seller to furnish product on an evenly-spread delivery basis over an extended period of time, usually for 1 year.

Coverage of petroleum product prices is restricted to and updated according to the major products traded. Major products are determined by the highest number of transactions and the highest volumes of product traded, e.g., 1987 replacement of the New York leaded regular gasoline series with the unleaded regular gasoline series.

Glossary

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons.

CIF (Cost, Insurance, Freight). This term refers to a type of sale in which the buyer of the product agrees to pay a unit price that includes the f.o.b. value of the product at the point of origin plus all costs of insurance and transportation. This type of a transaction differs from a "Delivered" purchase, in that the buyer accepts the quantity as determined at the loading port (as certified by the Bill of Lading and Quality Report) rather than pay based on the quantity and quality ascertained at the unloading port. It is similar to the terms of an f.o.b. sale, except that the seller, as a service for which he is compensated, arranges for transportation and insurance.

Cooling Degree-Days. The number of degrees per day the daily average temperature is above 65 degrees F. The daily average temperature is the mean of the maximum and minimum temperature for a 24-hour period.

Crude Oil. A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities, Lease condensate and drips are included but topped crude oil (residual) and other unfinished oils are excluded.

Crude Oil Input. The total crude oil put into processing units at refineries.

Degree-Day Normals. Simple arithmetic averages of monthly or annual degree-days over a long period of time (usually the 30-year period 1951-1980). These may be simple degree-day normals or population-weighted degree-day normals.

Distillate Fuel Oil. Includes No. 1, No. 2, and No. 4 fuel oils, and No. 1, No. 2, and No. 4 diesel fuels. These are light fuel oils used primarily for home heating, as a diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and for electric power generation.

FOB (Free On Board). Pertains to a transaction whereby the seller makes the product available within an agreed on period at a given port at a given price; it is the responsibility of the buyer to arrange for the transportation and insurance.

Gas Oil. European designation for No.2 heating oil, and diesel fuel.

Gross Inputs. The crude oil, unfinished oils, and natural gas plant liquids put into atmospheric crude oil distillation units.

Heating Degree-Days. The number of degrees per day the daily average temperature is below 65 degrees F. The daily average temperature is the mean of the maximum and minimum temperature for a 24-hour period.

Imports. Unless otherwise specified in this report, refers to gross imports. Imports of minor products ("other oils") include aviation gasoline, kerosene, unfinished oils, liquefied petroleum gases, plant condensate, petrochemical feedstocks, lube oils, waxes, special naphthas, coke, asphalt, and other miscellaneous oils.

Jet Fuel. Includes kerosene-type jet fuel and naphtha-type jet fuel. Kerosene-type jet fuel is a kerosene quality product used primarily for commerical turbojet and turboprop aircraft engines. Naphtha-type jet fuel is a product in the heavy naphthas range used primarily for military turbojet and turboprop aircraft engines.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration, they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane. Excludes still gas.

Motor Gasoline. Finished leaded gasoline, finished unleaded gasoline, and blending components in the gasoline range. Production data represent finished leaded gasoline and finished unleaded gasoline. Stocks and imports data consist of the two types of finished gasoline and blending components. Stock change used in the calculation of motor gasoline product supplied is the change in finished motor gasoline stocks.

Operable Capacity. The maximum amount of input that can be processed by a crude oil distillation unit in a 24-hour period, making allowances for processing limitations due to types and grades of inputs, limitations of downstream facilities, scheduled and unscheduled downtimes, and environmental constraints. Includes any shutdown capacity that could be placed in operation within 90 days.

Petroleum Administration for Defense Districts (PADD). Five geographical areas into which the nation was divided by the Petroleum Administration for Defense for purposes of administration. These PADDs include the States listed below:

PADD I: Connecticut, Delaware, District of Columbia, Florida, Georgia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia, and West Virginia.

PADD II: Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, and Wisconsin.

PADD III: Alabama, Arkansas, Louisiana, Mississippi, New Mexico, and Texas.

PADD IV: Colorado, Idaho, Montana, Utah, and Wyoming.

PADD V: Alaska, Arizona, California, Hawaii, Nevada, Oregon, Washington.

Population-Weighted Degree-Days. Heating or cooling degree-days weighted by the population of the area in which the degree-days are recorded. To compute State population-weighted degree days, each State is divided into from one to nine climatically homogeneous divisions which are assigned weights based on the ratio of the population of the division to the total population of the State. Degree-day readings for each division are multiplied by the corresponding population weight for each division and these products are then summed to arrive at the State population-weighted degree-day figure. To compute national population-weighted degree-days, the Nation is divided into nine Census regions comprised of from three to eight States which are assigned weights based on the ratio of the population of the region to the total population of the Nation. Degree-day readings for each region are multiplied by the corresponding population weight for each region and these products are then summed to arrive at the national population weighted degree-day figure.

Processing Gain. The volumetric amount by which total output is greater than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a lower specific gravity than the crude oil processed.

Products Supplied. A value calculated for specific products which is equal to domestic production plus net imports (imports less exports), less the net increase in primary stocks. Total products supplied is calculated as inputs to refineries, plus estimated refinery gains, plus other hydrocarbon input, plus product imports, less product exports, less the net increase in product stocks. Values shown for "Other Oils" product supplied are the difference between total product supplied and product supplied values for specified products. Other oils product supplied incorporates crude oil product supplied and reclassified product adjustment.

Refiner Acquisition Cost of Crude Oil. The average price paid by refiners for crude oil booked into their refineries in accordance with accounting procedures generally accepted and consistently and historically applied by the refiners concerned. Domestic crude oil is that oil produced in the United States or from the outer continental shelf as defined in 43 USC 1131. Imported crude oil is any crude oil which is not domestic oil. The composite is the weighted average price of domestic and imported crude oil, Prices do not include the price of crude oil for the SPR.

- Paris of the total amount of

65 percent. The ratio for an individual refinery may fluctuate much more depending on the type of crude and other raw materials processed, the types of products produced, and the operating conditions of the refinery.

Residual Fuel Oil. Includes No. 5 and No. 6 fuel oils which are heavy oils used primarily for electric power generation, for

industrial and commercial space heating, as a ship fuel, and for various industrial uses.

Retail Motor Gasoline Prices. Motor gasoline prices calculated each month by the Bureau of Labor Statistics (BLS) in conjunction with the construction of the Consumer Price Index (CPI). These prices are collected in 85 urban areas selected to represent all urban consumers -- about 80 percent percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-service).

Stock Change (Refined Products). Component of Product Supplied calculation shown on U.S. Petroleum Balance. The product stock change shown on the U.S. Petroleum Balance Sheet for the current 4-week period is calculated in the following way; an average daily stock change is calculated for major refined products (i.e., all actual reported stocks); this stock change is added to an estimate for minor product stock change based on historical monthly data; a daily average stock change for refined product stocks for the 4-week period is then calculated. To calculate minor product stock change, the stock levels shown for other oils in the stock section of the balance sheet are used. These other oils stock levels are derived by: 1) computing an average daily rate of stock change for each month based on monthly data for the past 6 years; 2) using this daily rate and the minor stock levels from the most recent monthly publication to estimate the minor product stock level for the current period.

Stocks. For individual products in the WPSR, quantities held at refineries, in pipelines, and at bulk terminals which have a capacity of 50,000 barrels or more, and in transit thereto. Stocks held by product retailers and resellers, as well as tertiary stocks held at the point of consumption, are excluded. Stocks of individual products held at gas processing plants are excluded from individual product estimates but included in "Other Oils" estimates and "Total."

Unaccounted-for Crude Oil. A term which appears in U.S. Petroleum Balance Sheet. It reconciles the difference between data (or estimates) about supply and data (or estimates) about disposition. Its value can be positive or negative since it is a balancing term. As it appears in the monthly publications, it reflects the accuracy of the reported data. Because the unaccounted-for crude oil figure reflects the accuracy of reported and estimated figures, one would expect the figure to be larger in balances using preliminary or estimated data and smaller in balances using final data. In fact, the published figures confirm this expectation. In the WPSR, 4-week averages for the previous year are interpolated from final monthly data, so that the unaccounted-for crude oil value for the previous year is considerably smaller than that for the current period.

United States. For the purpose of the report, the 50 States and the District of Columbia. Data for the Virgin Islands, Puerto Rico, and other U.S. territories are not included in the U.S. Totals.

Energy Information Administration Electronic Publication System (EPUB) User Instructions

Selected Weekly Petroleum Status Report (WPSR), Petroleum Supply Monthly (PSM), Weekly Coal Production (WCP), Electric Power Monthly (EPM), Natural Gas Monthly (NGM), and Quarterly Coal Report (QCR) statistics are now available electronically on the Bnergy Information Admini stration (BIA) Computer Facility. Public access to these machine readable statistics is possible by dialing (202) 586-8658 for 300 baud or 1200 baud line speeds. Communications are Asynchronous and require a standard ASCII-type terminal. There is no charge for this service. Although no password is required, you will be requested to use your telephone number as a user identifier. This service is available 7 days per week (8:00 a.m. - 11:00 p.m., Monday thru Friday, and 10:00 a.m. - 6:00 p.m., weekends and holidays). Weekly petroleum and coal statistics are updated on Wednesday (Thursday in the event of a Holiday) after 5:00 p.m. Monthly petroleum supply data for the current available month are also provided and are updated by 5:00 p.m. on or about the 24th of the month. Monthly statistics from the Electric Power Monthly are available on or about the first working day of each month. Monthly statistics on natural gas are available on or about the 20th of the month. Questions or comments on petroleum data should be directed to Dale Bodzer at (202) 586-1257. Questions or comments on coal data should be directed to Noel Balthasar at (202) 586-5252. Questions on electricity data should be directed to Deborah Bolden at (202) 586-6872. Questions or comments on natural gas data should be directed to Jim Todaro at (202) 586-6305.

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